Corporate influence and the academic computer science discipline. [1: Business dealings, and debates at Stanford CS]

Camille Akmut

June 21, 2022

abstract
Stanford’s "regular” computer science faculty, in this study, are experimental subjects of a sociological work focusing on the corporatization of their profession and science.
All 60-some current "regular faculty" of computer science at Stanford were submitted to a sociological analysis in this work.

_The Death of Archimedes_ depicts a soldier raising a sword with fatal intent while the mathematician polymath continues his work unshaken, undisturbed.

In computer science, the death of Archimedes never happens.

This is because, in that final moment, the scientist and their allegorical enemy come to some agreement instead. Gold against corrupt, tainted knowledge.

Street smart and MIT or Stanford educated, world traveled and seasoned in worldly affairs, as adroit in business dealings as in debates, only the sky is the limit with individuals as ambitious as the ones found here:

Their institution is closer to Disneyland, (a comparison found often in disillusioned descriptions by their best alumni), than any dreamed up and nostalgic Cambridge or Oxford of the early 20th c.. Their buildings are named "Gates", "Knight" and even "Nvidia" rather than Newton, their professors and administrators have no shame about paid-for chairs called "Sequoia Capital" or "Canon USA", leaving little doubt about exactly what kind of business, or "hustles" these brave new world academics entertain and regularly engage in. Day-light teachers, moonlight entrepreneurs.

The regular faculty of computer science at Stanford, unbeknownst to them, are less Archimedes than gangster rappers: just as their lyrics purport, from 50 Cent to Rick Ross, "they stay hustlin’”.

Stanford’s motto (‘The wind of freedom blows’) must of course be understood in a Libertarian sense: for the wind of free market ideology blows strong at Stanford, outdoing fatal cold winters and ideas of Chicago.

At that most peculiar institution, only surpassed perhaps by MIT in that regard, the future of the capitalistic university, and of education within capitalism can be observed with a 30 or 50 year advance delay, before its destructive effects reach - one should say, ‘trickles down’ to - other institutions.

Abbreviations found in this work:

- G = Google
- F = Facebook
- MS = Microsoft
- HP = Hewlett Packard
- DEC = Digital Equipment Corporation
- AMZ = Amazon
- JANEst = Jane Street
- Pr. = Professor
- fo. = founder
- con. = consultant
- f. = fellowship
- sch. = scholarship
- Mill. = Million(s), implied US Dollars
- x/y = company acquired / acquiring company

(the convention was retained that corporations, when abbreviated, are capitalized)
<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Sponsorship</th>
<th>Corporate funding</th>
<th>Corporate employment</th>
<th>PhD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sara Achor</td>
<td>Assistant</td>
<td></td>
<td>x</td>
<td>Qualcomm, HP</td>
<td>MIT</td>
</tr>
<tr>
<td>Maneesh Agrawala</td>
<td>Forest Baskett Professor (Sun)</td>
<td></td>
<td>x</td>
<td>MS</td>
<td>Stanford</td>
</tr>
<tr>
<td>Alex Aiken</td>
<td>Alcatel-Lucent Professor</td>
<td></td>
<td>x</td>
<td>IBM</td>
<td>Cornell</td>
</tr>
<tr>
<td>Nima Anari</td>
<td>Assistant</td>
<td>G award, MS fellowship</td>
<td>x</td>
<td>G, F, MS, JANest</td>
<td>Berkeley</td>
</tr>
<tr>
<td>Clark Barrett</td>
<td>Associate</td>
<td></td>
<td>x</td>
<td>G, Intel, MS</td>
<td>Stanford</td>
</tr>
<tr>
<td>Gill Bejerano</td>
<td>Assistant</td>
<td>MS, Packard fellowship</td>
<td></td>
<td></td>
<td>Hebrew Univ.</td>
</tr>
<tr>
<td>Michael Bernstein</td>
<td>STMicroelectronics Faculty</td>
<td>G award, MS fellowship</td>
<td>x</td>
<td>F</td>
<td>MIT</td>
</tr>
<tr>
<td>Jeannette Bolg</td>
<td>Assistant</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dan Boneh</td>
<td>Professor</td>
<td>Packard fellowship</td>
<td>x</td>
<td>Voltage Sec./Cisco [founder]</td>
<td>Princeton</td>
</tr>
<tr>
<td>Adam Bouland</td>
<td>Assistant</td>
<td></td>
<td>x</td>
<td>QC Ware ['advisor']</td>
<td>MIT</td>
</tr>
<tr>
<td>Emma Brunskill</td>
<td>Assistant</td>
<td>G award, MS fellowship</td>
<td></td>
<td></td>
<td>MIT</td>
</tr>
<tr>
<td>Moses Charikar</td>
<td>Donald E. Knuth Professor</td>
<td>c. half Mill. from many</td>
<td>x</td>
<td>Google</td>
<td>Stanford</td>
</tr>
<tr>
<td>Ron Dror</td>
<td>Associate</td>
<td>G awards, fellowship</td>
<td>x</td>
<td>Censys [founder]</td>
<td>Michigan</td>
</tr>
<tr>
<td>Zakir Durumeric</td>
<td>Assistant</td>
<td></td>
<td></td>
<td>Decoy [founder], DEC</td>
<td>MIT</td>
</tr>
<tr>
<td>Stefano Ermon</td>
<td>Associate</td>
<td>MS f., Bloomberg grant</td>
<td></td>
<td></td>
<td>Cornell</td>
</tr>
<tr>
<td>Kayvon Fatahalian</td>
<td>Associate</td>
<td>G, F, AMZ, Apple, ...*</td>
<td></td>
<td></td>
<td>Stanford</td>
</tr>
<tr>
<td>Ron Fedkiw</td>
<td>Professor</td>
<td>Packard F., Intel sch.</td>
<td></td>
<td></td>
<td>UCLA</td>
</tr>
<tr>
<td>Chelsea Finn</td>
<td>Assistant</td>
<td>MS f., Intel award</td>
<td>x</td>
<td>Google Brain</td>
<td>Berkeley</td>
</tr>
<tr>
<td>Mike Genesereth</td>
<td>Professor</td>
<td></td>
<td></td>
<td></td>
<td>Harvard</td>
</tr>
<tr>
<td>Noah Goodman</td>
<td>Associate</td>
<td></td>
<td></td>
<td></td>
<td>Texas Austin</td>
</tr>
<tr>
<td>Carlos Guestrin</td>
<td>[Professor]**</td>
<td>IBM fellowship</td>
<td>x</td>
<td>Apple, Turi [founder]</td>
<td>Stanford</td>
</tr>
<tr>
<td>Leonidas Guibas</td>
<td>Paul Pigott Professor</td>
<td>G, AMZ, Apple, MS... ***</td>
<td>x</td>
<td>DEC, Xerox</td>
<td>Stanford</td>
</tr>
<tr>
<td>Patrick Hanrahan</td>
<td>CANON USA Professor</td>
<td></td>
<td></td>
<td>Tableau [founder], Pixar</td>
<td>Wisconsin</td>
</tr>
<tr>
<td>Tatsu Hashimoto</td>
<td>Assistant</td>
<td></td>
<td></td>
<td></td>
<td>MIT</td>
</tr>
<tr>
<td>John Hennessy</td>
<td>Professor</td>
<td></td>
<td></td>
<td>G, Silicon Graphics</td>
<td>Stony Brook</td>
</tr>
<tr>
<td>Mark Horowitz</td>
<td>Yahoo Founder’s Professor</td>
<td></td>
<td></td>
<td>Rambus Inc. [founder]</td>
<td>Stanford</td>
</tr>
<tr>
<td>Doug James</td>
<td>[Professor]</td>
<td></td>
<td></td>
<td></td>
<td>British Columbia</td>
</tr>
<tr>
<td>Dan Jurafsky</td>
<td>Jackson Eli Reynolds Professor</td>
<td></td>
<td></td>
<td></td>
<td>Berkeley</td>
</tr>
<tr>
<td>Sachin Katti</td>
<td>[Associate]</td>
<td>Packard fellowship</td>
<td>x</td>
<td>Intel</td>
<td>MIT</td>
</tr>
<tr>
<td>Oussama Khatib</td>
<td>Weichai Professor</td>
<td></td>
<td></td>
<td></td>
<td>Sup’Aero</td>
</tr>
<tr>
<td>Fred Kjoelstad</td>
<td>Assistant</td>
<td>G award, Intel f.</td>
<td>x</td>
<td>Accenture, ARM</td>
<td>MIT</td>
</tr>
<tr>
<td>Christos Kozyrakis</td>
<td>Professor</td>
<td>G, IBM, MS</td>
<td></td>
<td></td>
<td>Berkeley</td>
</tr>
<tr>
<td>Anshul Kundaje</td>
<td>Assistant</td>
<td></td>
<td>x</td>
<td>IBM</td>
<td>Columbia</td>
</tr>
<tr>
<td>Monica Lam</td>
<td>Professor</td>
<td></td>
<td>x</td>
<td>Tensilica/Cadence, Moka5</td>
<td>Carnegie Mellon</td>
</tr>
<tr>
<td>James Landay</td>
<td>Rajaraman Harinarayan Pr. (AMZ)</td>
<td>c. 5 Mill. from dozens</td>
<td>x</td>
<td>Intel, MS</td>
<td>Carnegie Mellon</td>
</tr>
<tr>
<td>Jure Leskovec</td>
<td>[Associate]</td>
<td>MS fellowship</td>
<td></td>
<td></td>
<td>Carnegie Mellon</td>
</tr>
<tr>
<td>Philip Levis</td>
<td>Associate</td>
<td>MS f., Foundation Capital</td>
<td>x</td>
<td>KuMu Networks [founder]</td>
<td>Berkeley</td>
</tr>
<tr>
<td>Fei-Fei Li</td>
<td>Sequoia Capital Professor</td>
<td>G award, MS f., IBM etc.</td>
<td>x</td>
<td>Google [Vice President]</td>
<td>Caltech</td>
</tr>
<tr>
<td>Percy Liang</td>
<td>Associate</td>
<td>MS fellowship</td>
<td>x</td>
<td>G, MS</td>
<td>Berkeley</td>
</tr>
<tr>
<td>Karen Liu</td>
<td>Associate</td>
<td></td>
<td>x</td>
<td>G</td>
<td>Washington</td>
</tr>
<tr>
<td>Tengyu Ma</td>
<td>Assistant</td>
<td>IBM fellowship</td>
<td>x</td>
<td>F (Meta AI), MS</td>
<td>Princeton</td>
</tr>
<tr>
<td>Chris Manning</td>
<td>Thomas M. Siebel Professor</td>
<td>IBM, Samsung, Toyota etc.</td>
<td>x</td>
<td>G</td>
<td>Stanford</td>
</tr>
<tr>
<td>David Mazieres</td>
<td>[Professor]</td>
<td></td>
<td></td>
<td>DEC, Bell Labs, many [fo.]</td>
<td>MIT</td>
</tr>
<tr>
<td>Nick McKeown</td>
<td>Kleiner Perkins, Mayfield, Sequoia Pr.</td>
<td>HP, Intel scholarships</td>
<td>x</td>
<td>HP, Intel, Nemo/Cisco [fo.]</td>
<td>Berkeley</td>
</tr>
<tr>
<td>John Mitchell</td>
<td>Mary and Gordon Crary Family Pr.</td>
<td></td>
<td></td>
<td></td>
<td>MIT</td>
</tr>
<tr>
<td>Subhasish Mitra</td>
<td>[Professor]</td>
<td>IBM, Intel awards</td>
<td>x</td>
<td>G, Intel, Cadence etc. [con.]</td>
<td>Stanford</td>
</tr>
<tr>
<td>Kunle Olukotun</td>
<td>Cadence Design Professor</td>
<td></td>
<td>x</td>
<td>Afara Websystems/Sun [fo.]</td>
<td>Michigan</td>
</tr>
<tr>
<td>John Ousterhout</td>
<td>L. Bosack and S. Lerner Pr. (Cisco)</td>
<td></td>
<td></td>
<td>Sun, Electric Cloud [fo.]</td>
<td>Carnegie Mellon</td>
</tr>
<tr>
<td>Chris Piech</td>
<td>Assistant</td>
<td></td>
<td></td>
<td></td>
<td>Stanford</td>
</tr>
<tr>
<td>Balaji Prabhakar</td>
<td>VMware Founders Professor</td>
<td></td>
<td></td>
<td></td>
<td>UCLA</td>
</tr>
<tr>
<td>Chris Re</td>
<td>[Associate]</td>
<td>'Robert Noyce' f. (Intel)</td>
<td>x</td>
<td>&quot;investor&quot;, Lattice/Apple</td>
<td>Washington</td>
</tr>
<tr>
<td>Omer Reingold</td>
<td>Rajeev Motwani Pr. (G, Sequoia)</td>
<td>Rothschild award</td>
<td>x</td>
<td>MS, Samsung</td>
<td>Weizmann Insti</td>
</tr>
<tr>
<td>Mendel Rosenblum</td>
<td>Cheriton Family Professor (G)</td>
<td></td>
<td>x</td>
<td>VMware [founder]</td>
<td>Berkeley</td>
</tr>
<tr>
<td>Aviad Rubinstein</td>
<td>Assistant</td>
<td></td>
<td></td>
<td></td>
<td>Berkeley</td>
</tr>
<tr>
<td>Dorsa Sadigh</td>
<td>Assistant</td>
<td>G, AMZ, JPMorgan award</td>
<td>x</td>
<td>MS</td>
<td>Berkeley</td>
</tr>
<tr>
<td>Mehran Sahami</td>
<td>James and Ellenor Chesebrough Pr.</td>
<td></td>
<td>x</td>
<td>G</td>
<td>Stanford</td>
</tr>
<tr>
<td>Aaron Sidford</td>
<td>[Assistant, Management and CS]</td>
<td></td>
<td></td>
<td></td>
<td>MIT</td>
</tr>
<tr>
<td>Li-Yang Tan</td>
<td>Assistant</td>
<td></td>
<td></td>
<td></td>
<td>Columbia</td>
</tr>
<tr>
<td>Caroline Trippel</td>
<td>Assistant</td>
<td>Nvidia f.</td>
<td>x</td>
<td>F</td>
<td>Princeton</td>
</tr>
<tr>
<td>Greg Valiant</td>
<td>[Associate]</td>
<td></td>
<td>x</td>
<td></td>
<td>Berkeley</td>
</tr>
<tr>
<td>Jennifer Widom</td>
<td>Fletcher Jones Professor</td>
<td>c. 5 Mill. (Boeing + CIA)</td>
<td>x</td>
<td>IBM, Xerox</td>
<td>Cornell</td>
</tr>
<tr>
<td>Keith Weinstein</td>
<td>Assistant</td>
<td>G, F awards</td>
<td>x</td>
<td>Ksplice/Oracle</td>
<td>MIT</td>
</tr>
<tr>
<td>Mary Wootters</td>
<td>Assistant</td>
<td>G award</td>
<td>x</td>
<td>IBM</td>
<td>Michigan</td>
</tr>
<tr>
<td>Jinjun Wu</td>
<td>Assistant</td>
<td>AMZ, Samsung awards</td>
<td>x</td>
<td>G</td>
<td>MIT</td>
</tr>
<tr>
<td>Daniel Yamins</td>
<td>Assistant</td>
<td></td>
<td></td>
<td></td>
<td>Harvard</td>
</tr>
<tr>
<td>Matei Zaharia</td>
<td>Assistant</td>
<td></td>
<td></td>
<td></td>
<td>Berkeley</td>
</tr>
</tbody>
</table>
1. Corporate influence

Corporate influence in academic computer science is unlike anything seen in most disciplines (English, History, Mathematics...), making it closer to uncertain new disciplines like 'Business', 'Marketing' or 'Journalism' (many whose 'professors' come from the private sector, with backgrounds distant from traditional academia and research).

The phenomenon described - of corporations’ influence on computer science - puts a heavy dent in computer scientist’s aspiration and claims to mimic mathematicians at an epistemological level as members of a pure science, a purely scientific discipline.

In their real lives, computer scientists spend as much time mingling with Google, Facebook or Microsoft as with calculus, vector algebra and number theory (depending on their sub-areas, graphics to cryptography); but in their heads, they imagine and fashion themselves the new Archimedes and Galilei of our age, completely dedicated to the pursuit of knowledge, free from all influence: kings, religions, new religions, new kings and queens - in the fictions that they build for themselves, they battle all of them culminating in a glorious victory ...

Computer scientists, opinionated on all matters from economics to sociology as they are, will now answer and protest: "But, PROVE to us that our papers were wrong! We took the money, but it had no influence." But, it is not an issue of right or wrong, it is a multi-leveled issue consisting of, at least the following dimensions:

i. What areas - of computer science - where resources, time, and energy invested in? This question raises the other, more interesting one: Which areas could have been investigated, but were not, because they were not funded?

ii. Among topics and themes researched: How were they approached, from what perspective? Likewise, which aspects of the topics studied were, hence left aside?

iii. What social benefit, what contribution to wider society did the research undertaken represent or provide?

iv. Whose interests are ultimately being served?

Further, it is likely that computer scientists having spent many years in the private technology sector (be it at Google, Facebook or trading company Jane Street) retain not only mental habits formed there (i.e. software products used, internal programming practices and guidelines, etc.) but also friends and co-workers and generally an influence network stemming from that corporate environment. Does this influence their teaching or grading or behavior in academia, or are these professors born anew - tabula rasa, so to speak - once entering or re-entering the Ivory tower? We prefer to make to make the more realistic hypothesis that their ties to the corporate world has an impact - the degree of which can be discussed and argued.

As an example, among the many activities of the, psychologist, Dr. Goodman one is given as "AI Tutors to Help Prepare Students for the 21st Century Workforce" [CV, grants section] – which does not sound much like science, and instead what work agencies are doing.

One professor seemingly had had enough, who writes: "In 1994 I left Berkeley to fulfill a long-standing desire to build commercial software. From 1994–1998 I was a Distinguished Engineer at Sun Microsystems Laboratories. In 1998 I founded Scriptics Corporation to commercialize Tcl development tools, where I was CEO until 2000. In 2002 I founded Electric Cloud etc. etc. In 2008 I returned to academia in the Computer Science Department at Stanford." [Ousterhout web site]

Madame Trippel, a former employee of Facebook, meanwhile seems to be affected by some form of schizophrenia: her Stanford Engineering departmental profile goes: "Trippel has been recently exploring the role of architecture in enabling privacy-preserving machine learning". Hopefully her experience at Facebook, one of the largest enemies of privacy, will be a trampoline on her learning journey so that she can do better next time...
2. Corporate influence: sponsored positions

Positions at the Associate or Assistant level are rarely if ever found sponsored, presumably because it does not have the same benefit for the companies (visibility, impact, prestige, ...).

fig. Stanford CS regular faculty: professor levels and sponsored positions

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assistant</td>
<td>23</td>
</tr>
<tr>
<td>Associate</td>
<td>14*</td>
</tr>
<tr>
<td>Professors</td>
<td>30</td>
</tr>
<tr>
<td>Sponsored professorships</td>
<td>20</td>
</tr>
<tr>
<td>Sponsored positions</td>
<td>21</td>
</tr>
</tbody>
</table>

n.t=67

*incl. Bernstein

In total, 20 out of the 30 professors that are among regular computer science faculty at Stanford occupy sponsored chairs meaning two-thirds (66.7%). Sponsors include billionaires from the technology sector, tech companies, investment firms, ... (cases include Sun, Amazon, Google, Weichai, Sequoia Capital, etc.).

fig. Origins of named chairs of Stanford CS regular faculty

<table>
<thead>
<tr>
<th>Likely fortune origin, affiliation...</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Cheriton Family&quot; David Cheriton, billionaire, Stanford CS prof., early Google investor etc.</td>
</tr>
<tr>
<td>Fletcher Jones</td>
</tr>
<tr>
<td>some rich guy who liked horses and funding computer science chairs incl. Knuth's and Widom's</td>
</tr>
<tr>
<td>Paul Pigott</td>
</tr>
<tr>
<td>early 20th c. car tycoon (Pacifica), Stanford man?</td>
</tr>
</tbody>
</table>

3. Corporate funding disguised: philanthropy

e.g.,

SAP is often found as Hasso Plattner "foundation", named after the founder rather than the company: a common whitewashing technique, (especially favored by offspring, wives and relatives wanting to put some distance between themselves and the original business, as well as the often little elegant world of commerce in general).

An alternative strategy consists in not naming the patriarch (and soon enough matriarch) founder of the company, instead calling the philanthropy e.g. "Cheriton Family" or "Noyce family". This is done for the same reasons, and is quite revealing: creating distance between the inheritors and the - it must be assumed - dirty hands, and dirty dealings of the Father-founder. Through these tactics whatever dark underbelly and unscrupulousness behind the company and fortune, a new untouched pristine reputation is created for the philanthropic organization led by wives, children, sisters, golden-spoon fed daughters with movie star and maybe even artistic(!) aspirations, failed sons, etc.

Hence, so called "Robert Noyce (family)" awards are Intel fortune derived. The cheery sounding "Biohub", with which many Stanford Faculty are associated (e.g. Leskovec) is another whitewashing campaign by Chan Zuckerberg, derived from Facebook’s dirty business. Destruction here, "biohub" and "Chan Zuckerberg Initiative" elsewhere (where Madame Zuckerberg can play modern day Princess and entertain her self-delusions as white gloved good-doer with clean hands). Wu Tsai philanthropy (expressed in various institutes) also came up.

Prof. Dr. Landay’s CV in particular pages 1 and 2 as well as 48 to 51 give an astounding insight into the many lives and roles of academic computer scientists today: bottom gutter hustlers, part captains of industry, part professors, part secretary, part businessmen and -women, ethical capitalists and visionaries and "disrupters" - and a bit of actual, independent research with whatever time and distracted energy and mental space left...
4. Academic groups, laboratories as free labor, networking and infrastructure for professor-led start-ups

Academic groups and labs as free labor and infrastructure for professor-led start-ups seems to be a rampant practice among computer scientists: students, which they are supposed to "advise", become workers, while the university is used as already paid for infrastructure (Internet, servers, rooms, etc.) – and it is largely unclear what benefit the university, especially public and publicly-funded even if partially, gets out of all of this. Professors on the other hand make potential multimillion deals with next to no initial investments – which, from our naive perspective, sounds like a capitalist’s dream come true.

It is a practice that is seldom talked about or made explicit, (for obvious legal, commercial and otherwise reasons), but glimpses of it can be had through the Professors’ various web presence: Christopher Re, exempli gratia, writes for instance: "companies I advise or invest [are listed] in here, many of which involve former members of the lab." hyper-linked to the following:

With the Factory, I’m working to help build companies including Arbo, Artera, Galileo, Greenstone, Modular AI, Numbers Station, Opaque, Predibase, Rivos, SambaNova, Snorkel, Voltron Data, and Vori. I am fortunate to participate as an advisor or investor in some amazing companies including Actively, Adept, Agita Labs, Al21, Curie, DataChat, Datometry, Evidently, Exotanium, Gantry, MeasureMe, Moonhub, OtterTune, Ponder, Proximo, Ramp, Thistle, and others. Along with some great partnerships on companies above, I advise GV. I’ve been fortunate to participate in companies that have exited Lattice Data, Inductiv, Pixie Labs (now part of New Relic) and Sentropy (now part of Discord).

https://cs.stanford.edu/people/chrismre/startup_advising.php (Busy as he is, one hopes he still finds the time for research and fulfillment of the minimal ideals of, independent, not-profit oriented, science.)

Mehran Sahami, exempli gratia, long-time Google employee, is a man of fewer words instead preferring more elegant, and likely prudent phrasing: "I also continue to maintain a foot in the start-up world by serving on advisory boards to various companies.” [Sahami web site]

5. Education

fig. Educational origins, i.e. PhD, of Stanford’s Computer Science regular faculty

<table>
<thead>
<tr>
<th>Institute</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIT</td>
<td>14</td>
</tr>
<tr>
<td>Berkeley</td>
<td>12</td>
</tr>
<tr>
<td>Stanford</td>
<td>11</td>
</tr>
<tr>
<td>Carnegie Mellon (CMU)</td>
<td>4</td>
</tr>
<tr>
<td>Cornell</td>
<td>3</td>
</tr>
<tr>
<td>Michigan</td>
<td>3</td>
</tr>
<tr>
<td>Princeton</td>
<td>3</td>
</tr>
<tr>
<td>two each [8]</td>
<td></td>
</tr>
<tr>
<td>one each [9]</td>
<td></td>
</tr>
<tr>
<td>Columbia, Harvard, UCLA, Washington (Seattle)</td>
<td>1</td>
</tr>
<tr>
<td>British Columbia, Caltech, Hebrew University, KTH, Stony Brook, Sup’Aero, Texas Austin, Weizmann Institute, Wisconsin</td>
<td>1</td>
</tr>
</tbody>
</table>

n,t=67

fig. Educational origins, i.e. PhD, of Stanford’s Computer Science regular faculty: geographical distribution

<table>
<thead>
<tr>
<th>Region</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>63</td>
<td>94%</td>
</tr>
<tr>
<td>— USA</td>
<td>62</td>
<td>92%</td>
</tr>
<tr>
<td>Europe</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Israel</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

n,t=67
fig. Educational origins, i.e. PhD, of Stanford's Computer Science regular faculty: US private and public univ.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Private</td>
<td>40 (65%)</td>
</tr>
<tr>
<td>Public</td>
<td>22</td>
</tr>
</tbody>
</table>

n,t=62

Stanford’s faculty have for alma mater institutions known for entertaining extremely close ties to corporations, starting with Stanford itself, MIT of course, Carnegie Mellon. All private institutions, with a large component of profit orientation.

A minority, approx. a third of Stanford’s regular CS faculty, have obtained a PhD from public institutions - among these many come from Berkeley, (30%), leaving the rest distributed across less high ranking public US colleges at a maximum rate of 3 each.

1 individual is from the Univ. of Michigan but, there, had door-opening advising (Halderman, himself a Princeton man). UCLA is linked to a computer science affiliated professor whose PhD is listed as ”applied mathematics” [UCLA being a current world center for mathematics]. Texas Austin is linked, likewise, to a PhD in mathematics but from someone who identifies with psychology (as a discipline).

A pattern observed further is undergraduate at e.g. MIT or Harvard followed by Stanford or vice versa, (in order to claim both), as in the case of Horowitz or Hashimoto - or some variation involving other premium, prestige universities.

6. Misc. notes

Fred Kjoelstad and Fred Kjolstad appear twice, bringing down the number of regular faculty at time of writing to 67.

Sloan awards, (which depending on category can be around 100K USD), so numerous were ignored: we concentrated on funding closest or most relevant to computer science and technology). Okawa Foundation is another.

Absence of information in categories related to corporate funding or employment does not signify absence of activity or participation necessarily, it could mean the data was not available (as readily as in the case of other individuals).

A note that will only be of interest to researchers doing work on computer science from a sociological and/or historical perspective: a commonly overlooked source for biographical information is the list of publications - through which, indirectly, and with only a little extra work, data such as educational and professional affiliations can be derived.
- "Pixar Pioneers Win $1 Million Turing Award”, *NYT* March 18th 2020. [Catmull and Hanrahan]
- "Donald Knuth. Fletcher Jones Professor of Computer Science, Emeritus” [https://engineering.stanford.edu/people/donald-knuth

NB. Generally, information were obtained either directly on Stanford’s website or through it (via hyperlink) - unless otherwise indicated.

* "Our work has been supported by the National Science Foundation [ref. nr.] and by INTEL, NVIDIA, QUALCOMM, GOOGLE, ADOBE, FACEBOOK, ACTIVISION, APPLE, AMAZON (...)” [Stanford page Fatahalian]
** "His previous positions include the Amazon Professor of Machine Learning at the Computer Science & Engineering Department of the University of Washington, the Finmeccanica Associate Professor at Carnegie Mellon University, and the Senior Director of Machine Learning and AI at Apple” [Stanford page Guestrin]
*** "He has also been awarded grants or given gifts by several corporations, including Adobe, Agilent, Amazon, Apple, Autodesk, Google, HTC, Microsoft, Qualcomm, Toshiba, and Toyota.” [CV of Guibas]
Appendix

- James Landay, CV, pp. 1-2 and 48-51
- Jennifer Widom, CV ["November 2020"], pp. 1-2 and 5-6
- Moses Charikar, CV, pp. 1-3
- Chelsea Finn, CV, p. 1
- Hanrahan "Canon USA" professor
- Hennessy various corporate activities
- Fei-Fei Li Stanford profile page
JAMES A. LANDAY

Anand Rajaraman and Venky Harinarayan Professor in the School of Engineering
Computer Science Department
Stanford University, Stanford, CA
landay@cs.stanford.edu
@landay

RESEARCH INTERESTS
Human-Computer Interaction (HCI), Ubiquitous Computing, User Interface Design Tools, Automated Usability Evaluation, End-User Programming.

EDUCATION
12/1996 Carnegie Mellon University, Pittsburgh, PA
Ph.D. in Computer Science
Thesis: Interactive Sketching for the Early Stages of User Interface Design
Advisors: Brad Myers and James Morris
12/1993 Carnegie Mellon University, Pittsburgh, PA
M.S. in Computer Science
05/1990 University of California, Berkeley, CA
B.S. in Electrical Engineering/Computer Science with High Honors

EMPLOYMENT
10/2016-PRESENT Stanford University, Computer Science Department, Stanford, CA
Anand Rajaraman and Venky Harinarayan Professor in the School of Engineering Professor
Teach courses related to user interface design. Perform and advise research in the areas of human-computer interaction and ubiquitous computing.
08/2014-PRESENT Stanford University, Computer Science Department, Stanford, CA
Teach courses related to user interface design. Perform and advise research in the areas of human-computer interaction and ubiquitous computing. Founded and led DUB, cross-campus interdisciplinary HCI+DESIGN collaboration with 35 faculty members and over 100 students.
08/2013-07/2014 Cornell NYC Tech, Information Science Department, New York, NY
Professor
Helped to start new university campus. Taught courses related to user interface design. Performed and advised research in the areas of human-computer interaction and ubiquitous computing. Created cross-NYC organization for HCI and Design researchers and practitioners.
09/2010-07/2013 University of Washington, Computer Science & Engineering, Seattle, WA
Short-Dooley Professor
Associate Professor
08/2003-08/2010 Taught courses related to user interface design, development, and evaluation. Performed research in of human-computer interaction, user interface design tools, and ubiquitous computing. Founded and led DUB, cross-campus interdisciplinary HCI+DESIGN collaboration with 35 faculty members and over 100 students.
08/2009-12/2011 Microsoft Research, Beijing, China
Visiting Faculty Researcher
Helped build new human-computer interaction research group. Recruited and hired group manager and team members. Carried out research in activity-based computing. Helped develop broader HCI research community in Beijing and China.
02/2011-06/2011 Tsinghua University, Computer Science Department, Beijing, China
Visiting Professor
Developed and co-taught User Interface Technology course to Masters students.
Intel Corporation, Intel Labs Seattle, Seattle, WA
09/2006-01/2010
Strategic Consultant
08/2003-08/2006
Laboratory Director
Managed leading ubiquitous computing research laboratory. Responsible for developing research direction as well as management of staff and $6.5M annual budget. Led technology transfer to Intel. Lab dominated the field in research impact and number of publications at the top-two ubicomp conferences during my tenure.

University of California, EECS Department, Berkeley, CA
07/2002-07/2003
Associate Professor
01/1997-06/2002
Assistant Professor
Taught courses related to user interface design, development, and evaluation. Performed research in the areas of human-computer interaction, user interface design tools, and ubiquitous computing.

NetRaker Corp, Sunnyvale, CA
02/1999-08/2003
CTO, Chief Scientist: Co-founded leading company delivering online usability and market research. Responsible for overseeing design of the key features in products as well as hiring staff and obtaining funding. Acquired by KeyNote Systems in 2004.

Consultant
01/1997-PRESENT
Advise companies on user interface design and software implementation.

Baidu USA, Sunnyvale, CA
Klipp, Colussy, Jenks, DuBois, Denver, CO
Dawnlight, Palo Alto, CA
Microsoft Corporation, Redmond, WA
Intel Corporation, Seattle, WA
Pangea Systems, Oakland, CA
Fuji-Xerox Palo Alto Labs, Palo Alto, CA
Propel Software, Santa Clara, CA
Fish & Richardson, Redwood City, CA
SkyFlow, Berkeley, CA
Google, Mountain View, CA
WilmerHale LLP, Washington, DC
Hewlett Packard Inc., Palo Alto, CA

Xerox Corporation, Palo Alto Research Center, Palo Alto, CA
Research Intern: Investigated user interface problems encountered when running applications on large (5-foot diagonal) pen-based displays. Designed and built new interface components to solve these problems and an application incorporating them.
06/1992-08/1992

Digital Equipment Corporation, Paris Research Laboratory, France
Summer Research Intern: Designed and implemented Rockit, a software system that identifies graphical constraints in a scene and allows the user to quickly and easily apply the desired constraints. Led to three conference publications.
06/1991-08/1991

Go Corporation, Foster City, CA
Software Engineering Intern: Designed and implemented bug entry database for the company’s pen-based computer. Design included user interface to network database, as well as extension of a commercial database to support additional features.
06/1990-08/1990

Ardent Computer, Sunnyvale, CA
Member of Technical Staff: Designed and developed ECAD library manager to maintain consistency among different libraries and projects. Programmed CAD utilities for logic designers. Ran test simulations for verification of ASIC designs.
06/1989-08/1989

Software Publishing Corporation, Mountain View, CA
Software Engineering Intern: Designed and implemented PFS: Professional File 2.0 window manager, facilitating custom application development. Created utility for designer to finalize details of UIs. Implemented Lotus 1-2-3 data import/export.
06/1987-08/1987

Software Publishing Corporation, Mountain View, CA
01/1988-08/1988
GOVERNMENT & UNIVERSITY RESEARCH GRANTS

2020  **Alfred P. Sloan Foundation**, $1,000,000, 07/01/20-06/30/21
Genie: An Open Privacy-First Virtual Assistant, with PI Prof. Monica Lam and others

2020  **Stanford Center for Integrated Facility Engineering**, $80,000, 10/01/20-09/30/21
Hybrid Physical-Digital Spaces: Transforming the Design, Operation, and Experience of Built Environments to Promote Health and Wellbeing, with co-lead-PI Sarah Billington, Civil & Environmental Engineering Department, Stanford

2020  **Hasso Plattner Forderstiftung, fGmbH**, $100,000, 10/01/20-09/30/21
Designing Intelligent Systems with Situated Feedback Based on Dynamic Mental Models

2020  **Stanford RISE**, $50,000, 08/15/20-08/14/21
Hybrid Physical-Digital Spaces: Transforming the Design, Operation, and Experience of Built Environments to Promote Health and Wellbeing, with co-lead-PI Sarah Billington, Civil & Environmental Engineering Department, Stanford

2019  **Hasso Plattner Forderstiftung, fGmbH**, $109,000, 10/01/19-09/30/20
Artistic Vision: Providing Contextual Photography Guidance for Rapid In-Camera Iteration

2019  **National Science Foundation**, $3,000,000, 04/01/19-03/31/23 (Landay: ~$400,000)
CNS Core: Large: Autonomy and Privacy with Open Federated Virtual Assistants, with PI Prof. Monica Lam and others

2018  **National Science Foundation**, $452,435, 10/01/18-09/30/23
Collaborative Research: Scaling the Early Research Scholars Program, with Dr. Cynthia Lee

2018  **Toyota Research Institute**, $900,000, 09/01/18-08/31/20
An Engagement Learning Approach to Generating Massive Labeled Datasets for Training AI Systems, with co-lead-PIs Fei-Fei Li and Michael Bernstein

2018  **Stanford Catalyst for Collaborative Solutions**, $925,926, 07/01/18-06/30/20
(Landay: ~$250,000)
Hybrid Physical+Digital Spaces for Enhanced Sustainability and Wellbeing, with co-lead-PI Sarah Billington, Civil & Environmental Engineering Department, Stanford

2018  **Stanford Catalyst for Collaborative Solutions**, $1,481,482, 07/01/18-06/30/20
(Landay: $92,300)
Motivating Mobility and Health on a Global Scale, with PI Scott Delp, Bioengineering

2018  **Stanford Artificial Intelligence Lab**, $46,296, 07/01/18-06/30/20 (Landay: $0)
Learning Behavior Change Interventions at Scale, with PI Michael Bernstein

2018  **Hasso Plattner Forderstiftung, fGmbH**, $125,000, 10/01/18-09/30/19
From Design Thinking to Computational Thinking: An Early Stage Design Tool for Supporting Child Programmers’ Problem Definition and Ideation

2017  **Stanford Woods Institute for the Environment**, $49,976, 09/01/17-06/30/19
Motivating Pro-Environmental Behavior Change Through Ambient Narratives

2017  **Stanford Center for Digital Health**, ~$25,000, 05/01/17-04/31/18
Harnessing Mindset in Health Technology Narratives (110 Apple watches), with Prof. Alia Crum, Psychology Department, Stanford University

2017  **Hasso Plattner Forderstiftung, fGmbH**, $137,000, 09/01/17-08/31/18
ParaPower: Evaluating Parallel Prototyping Tools and Practices for Novice Designers
2016  **Hasso Plattner Forderstiftung, fGmbH**, $130,000, 09/01/16-08/31/17
Understanding, Capturing and Reusing Successful Design Practices

2016  **Toyota Research Institute**, $1,800,000, 02/01/16-02/28/18 (Landay: $627,904)
Human behaviors and interaction for in-car experiences, with Profs. Agrawala & Bernstein, Stanford University

2011  **National Science Foundation**, $544,180, 09/01/11-08/31/14
Interaction Economics: Instruments that Measure Social-Computational Systems, with Professor Claus Pörtner, Seattle University

2009  **National Science Foundation**, $160,879, 08/15/09-07/31/12

2009  **National Science Foundation**, $497,438, 08/01/09-07/30/12
TC:SMALL: Informing Users of their Privacy in Practice, co-PI with Professor David Wetherall

2008  **University of Washington Royalty Research Fund (RRF)**, $38,000
Beyond speech recognition: Harnessing Power of Voice for Effective Control of Computer Interfaces, co-PI with Prof. Jacob O. Wobbrock

2008  **University of Washington Technology Gap Innovation Fund (TGIF)**, $49,922
A Semi-Private Internet via Shared Knowledge Tests, co-PI with Prof. James Fogarty

2008  **NISH**, $5,000
Award for VoiceDraw project with Susumu Harada and Jacob Wobbrock

2007  **National Science Foundation IIS-0742877**, $142,281
SGER: End-user Sketching of Games and Simulations

2003  **National Science Foundation**, $1,240,000, 10/01/03-09/30/08
ITR: The Vocal Joystick: Voice-based Assistive Technology for Individuals with Motor Impairments, co-PI with Professor Jeff Bilmes

2002  **National Science Foundation**, $2,300,000, 09/15/02-08/31/08
ITR: Human-Centered Design of Context Aware Computing: Scalability, Usability, Privacy

2002  **UC MICRO Program**, $45,000
Design and Simulation Tools for Context-Aware Computing

2000  **National Science Foundation**, $499,269
Action Agenda: Electronic Problem Based Long Life Learning for the Campus of the Future, co-PI with Professor Anthony Joseph

2000  **National Science Foundation**, $270,000
The Designers’ Outpost: A Task-centered Tangible Interface for Web Site Info. Design

2000  **UC MICRO Program**, $29,531
Multimodal Tools for Creating Informal Presentations and Specifying Animations

1999  **National Science Foundation CAREER Award**, $300,000
Informal Tools for Multimodal User Interface Design

1999  **UC Berkeley Hellman Family Faculty Fund Award**, $25,000
Computer-aided Drawing for the Visually Impaired

1999  **Center for Innovative Learning Technologies (CILT) Seed Grant**, $14,950
Palms Together: Collaborative use of Multiple Baby-faced Displays
1998  **UC MICRO Program**, $16,603
Informal Web page Design

1998  **UC Berkeley Junior Faculty Research Grant**, $7,500
Informal User Interfaces for Classroom Teaching
INDUSTRIAL GIFTS

2021  Toyota, Unrestricted, $10,000
2020  Digital Foundry, Support for CS147 project fair, $3,000
2020  Microsoft, Support for CS147 project fair, $9,500
2020  Toyota, Unrestricted, $10,000
2019  Adobe Systems, Unrestricted, $5,000
2019  SK Telecom, Multimodal voice project support, $69,000 (via SAIL)
2019  Toyota, Unrestricted, $10,000
2017  TAL Education Group, Smart Primer project support, $1,305,000 (over 3 years)
2017  Renault, Unrestricted, $150,000
2017  Baidu, Unrestricted, $100,000
2015  Adobe CTL, Unrestricted, $4,500
2015  Microsoft Research, Unrestricted, $15,000
2012  Microsoft Research, World Lab Summer Institute 2012, $40,000
2012  Google, World Lab Summer Institute 2012, $25,000
2012  Intel, World Lab Summer Institute 2012, $10,000
2009  Google, Measuring Utility of Human-Computer Interactions, $50,000
2009  Nokia Research, Context-Aware Mobile Phones, $5,000
2009  Google, Context-Aware Mobile Phones: Design, Prototyping, & Evaluation, $50,000
2008  Nokia Research, Context Aware Mobile Phones, $35,000
2008  Microsoft Research, Unrestricted, $15,000
2008  Microsoft Research, Student travel to CHI 2008, $6,000
2007  Yahoo, Context-Aware Mobile Phones: Design, Prototyping, & Evaluation, $25,000
2007  Microsoft Research, Unrestricted, $15,000
2002  Xerox PARC, Unrestricted, $15,000
2001  Hewlett-Packard, Unrestricted, $50,000
2001  Xerox PARC, Unrestricted, $15,000
2000  Fuji Xerox Palo Alto Laboratories, Unrestricted, $25,000
2000  Qualcomm, Adding History & Collaboration Support to DENIM, $50,000
2000  CubicScience, Unrestricted, $50,000
2000  Xerox PARC, Unrestricted, $15,000
2000  IBM, Unrestricted, $40,000
2000  MyTurn.com, Unrestricted, $20,000
2000  SRI, Informal Tools for Multimodal User Interface Design, $35,000
1999  Intel, Infrastructure Grant for innovative use of laptops in the classroom, $200,000
1999  Fuji Xerox Palo Alto Laboratories, Unrestricted, $15,000
1998  NEC, Informal Web Page Design, $30,000
1998  Fuji Xerox Palo Alto Laboratories, Unrestricted, $15,000
1997  Fuji Xerox Palo Alto Laboratories, Unrestricted, $15,000
VITA
Jennifer Widom

Current Position

Stanford University, Frederick Emmons Terman Dean of the School of Engineering

- Fletcher Jones Professor in Computer Science and Electrical Engineering, 2008-present
- School of Engineering Senior Associate Dean for Faculty and Academic Affairs, 2014-16
- Computer Science Department Chair, 2009-14
- Professor, 2004-08
- Associate Professor, 1996-04
- Assistant Professor, 1993-96

Areas of research: Scalable graph processing; Crowdsourcing and human-assisted computation; Data provenance; Managing uncertain data; Query processing on data streams; Combining databases and the Web; Database systems for semistructured data and XML; Data transformations and warehousing; Active databases

Areas of teaching: Working with Data - Tools & Techniques; Introduction to Databases; Database System Implementation

Education

- Ph.D. in Computer Science; Cornell University, 1987
- M.S. in Computer Science; Cornell University, 1985
- M.S. in Computer Science; Indiana University, 1983
- B.S. in Music with minors in Mathematics and Computer Science; Indiana University Jacobs School of Music, 1982

Previous Positions

- Research Staff Member, Computer Science Department, IBM Almaden Research Center; 1988-93
- Visiting Assistant Professor, Computer Science Department, Cornell University; 1987-88
- Summer Research Intern, Xerox Palo Alto Research Center; 1984, 1985

Honors and Fellowships

- Member, American Academy of Arts & Sciences, class of 2009
- Member, National Academy of Engineering, class of 2005
- ACM Fellow, conferred 2005
- Guggenheim Foundation Fellow, 2000-01

General Awards

- EPFL-WISH Foundation Erna Hamburger Prize, 2018
- IEEE Technical Committee of Data Engineering (TCDE), Education Award, 2018
- ACM-W Athena Lecturer Award, 2015
- Indiana University School of Informatics and Computing, Career Achievement Award, 2015
- ACM SIGMOD Edgar F. Codd Innovations Award, 2007
- IBM Research Division Award for Extensible Database Technology, 1992

Paper Awards

- Best Paper Runner-Up Award, 25th International Conference on Scientific and Statistical Database Management,
2013 (for GPS: A Graph Processing System, with S. Salihoglu)
• “Test of Time” Paper Award, 2005 ACM SIGMOD International Conference on Management of Data (for View Maintenance in a Warehousing Environment, with Y. Zhuge, H. Garcia-Molina, and J. Hammer)
• Best Paper Award, 12th International World Wide Web Conference, 2003 (for Scaling Personalized Web Search, with G. Jeh)
• 10-Year Paper Award, 26th International Conference on Very Large Data Bases, 2000 (for Deriving Production Rules for Constraint Maintenance, with S. Ceri)
• “Test of Time” Paper Award, 2000 ACM SIGMOD International Conference on Management of Data (for Set-Oriented Production Rules in Relational Database Systems, with S. Finkelstein)
• Best Paper Award, 17th International Conference on Very Large Data Bases, 1991 (for Deriving Production Rules for Incremental View Maintenance, with S. Ceri)

Professional Service

Board of Trustees and Other Oversight Committees

• Singapore Ministry of Education Academic Research Council, 2022-24
• VLDB Endowment Board of Trustees, 1998-2003 (executive board 2000-03)

Selection Committee

• ACM SIGMOD Awards Committee, 2015-17
• IEEE John Von Neumann Medal selection committee, 2014-16
• Heidelberg Laureate Forum selection committee, 2013-15
• Microsoft Research Faculty Fellows selection panel, 2013
• National Academy of Engineering Computer Science peer committee; 2006, 2008-10

Advisory Board Member

• InsightsOne Inc., 2011-14
• Abrevity Inc., 2006-09
• Ingrian Networks Inc., 2004-08
• Celequest Inc., 2003-07
• Kaltix Inc., 2003
• Business Signatures Inc., 2002-06
• CrossGain Inc., 2000-01
• WhizBang! Labs Inc., 1999-2002
• Angara Inc., 1997-2001
• Brookhaven National Laboratory Protein Data Bank, 1997-99

Visiting Committee Member

• Massachusetts Institute of Technology, Electrical Engineering & Computer Science Department, 2022-24
• Harvard University, School of Engineering and Applied Sciences, 2019
• Cornell Tech, 2019
• Princeton University, Computer Science Department, 2015-19
• University of California Santa Barbara, Computer Science Department, 2013-15
• Duke University, Computer Science Department, 2010

Other Professional Boards and Committees

• National Academy of Engineering Nominating Committee, 2021-22
• National Science Foundation IIS Division Director search committee, 2014
• Computing Research Association (CRA) Committee on Best Practices for Hiring, Promotion, and Scholarship; 2013-15

Editor

• Proceedings of the VLDB Endowment; review board, 2008-09
Primary Research Grants


- Peta-Scale Information Management on a Cloud. KAUST Academic Excellence Alliance Collaborative Research Grant, 2010-2012, total funding approx. $700,000. Co-Principal Investigator (with H. Garcia-Molina).

- Data Engine for an Analyst’s Workbench. Intelligence Advanced Research Projects Activity (IARPA), 2010-2011, total funding approx. $270,000. Co-Principal Investigator (with H. Garcia-Molina).

- Provenance-Supported Debugging in Data Pipelines. Yahoo! Faculty Research and Engagement Award, 2010-2011, total funding $10,000. Principal Investigator.

- Better Information Integration through Uncertainty. National Science Foundation, 2009-2013, total funding approx. $1,200,000. Principal Investigator.

- Data Integration through Deduplication, Uncertainty, and Lineage. Microsoft Corporation Jim Gray seed grant, 2008, total funding $35,000. Principal Investigator.


- Intelligent Information Integration and Aggregation. Boeing Corporation, 2005-2010, total funding approx. $1,040,000. Co-Principal Investigator (with H. Garcia-Molina).


- From the Web to the Global InfoBase. National Science Foundation Information Technology Research (ITR), 2000-2003, total funding approx. $3,250,000. Co-Principal Investigator (with H. Garcia-Molina, C. Manning, and J.D. Ullman).


---

**Publications**

**Books**


**Book Chapters**


**Refereed Journal Articles**


Moses Charikar

Office:  Gates Computer Science Bldg  Email: moses@cs.stanford.edu
353 Jane Stanford Way  URL: https://profiles.stanford.edu/moses-charikar
Stanford, CA 94305

RESEARCH INTERESTS

Efficient algorithmic techniques for processing, searching and indexing massive high-dimensional data sets; efficient algorithms for computational problems in high-dimensional statistics and optimization problems in machine learning; approximation algorithms for discrete optimization problems with provable guarantees; convex optimization approaches for non-convex combinatorial optimization problems; low-distortion embeddings of finite metric spaces.

EDUCATION

1995 - 2000  Stanford University, Stanford, CA.
Ph.D. Computer Science.
Advisor: Rajeev Motwani

1991 - 1995  Indian Institute of Technology (IIT), Bombay, India.
Bachelor of Technology, Computer Science and Engineering.

PROFESSIONAL EXPERIENCE

Dec ’17 onwards
Donald E. Knuth Professor of Computer Science and Professor, by courtesy, of Mathematics, Stanford University.

August ’15 onwards
Professor, Computer Science, Stanford University.

July ’11 - July ’15
Professor, Computer Science, Princeton University.

July ’07 - June ’11
Associate Professor, Computer Science, Princeton University.

Sept ’01 - June ’07
Assistant Professor, Computer Science, Princeton University.

Sept ’00 - Aug ’01
Research Scientist, Google Inc.

PROFESSIONAL SERVICE


• Director, Center for Computational Intractability, 2012-14.


RESEARCH GRANTS

• Amazon Research Award for Efficient Algorithms for High-Dimensional Statistics $80,000 (2019).

• Google Research Award for New Estimators via Locality Sensitive Hashing $70,000 (2018).

• NSF CCF award 1617577 for New Perspectives on Mathematical Programming Relaxations, $450,000 (July ’16 - June ’19).

• Simons Investigator award, $1,320,000 (August ’14 - July ’24)

• NSF CCF award 1302518 for Towards Provable Bounds for Machine Learning (co-PI Sanjeev Arora), $900,000 (Sep ’13 - Aug ’17).

• NSF CCF award 1218687 for Approximation Techniques for Combinatorial Optimization, $400,000 (Aug ’12 - July ’16).

• Google Research Award for Online Bipartite Matching $70,110 (2011).

• NSF CCF award 0916218 for Mathematical Programming Methods in Approximation, $499,996 (Aug ’09 - July ’12).

• NSF Expeditions award 0832797 for Understanding, Coping with, and Benefiting from Intractibility (co-PI’s Sanjeev Arora, Bernard Chazelle, Bob Tarjan, Boaz Barak, Avi Wigderson, Russell Impagliazzo, Eric Allender, Mike Saks, Mario Szegedy, Subhash Khot, Assaf Naor), approx $10,000,000 (Aug ’08 - July ’13).
• Google Research Award for Efficient Content Based Similarity Search (co-PI Kai Li) $110,000 (2006), $120,000 (2007).

• Yahoo! Research Alliance Award for Content-Based Based Similarity Search for Non-Text, Feature-Rich Datasets (co-PI Kai Li) $100,000 (2006-07).

• NSF MSPA-MCS award 0528414 for Embeddings of Finite Metric Spaces - A Geometric Approach to Efficient Algorithms (co-PI’s Sanjeev Arora, Bill Johnson, Misha Gromov), $289,998 (Sept ’05 - Aug ’08).

• NSF CSR-PDOS award 0509447 for Content-Searchable Storage for Feature-Rich Data (co-PI’s Kai Li, Perry Cook, Olga Troyanskaya), $290,464 (July ’05 - June ’06).

• NSF IIS award 0414072 for Constructing an Enhanced version of Wordnet (co-PI’s Christiane Fellbaum, Daniel Osherson, Rob Schapire), $106,000 (Sept ’04 - Aug ’05).

• NSF CAREER award 0237113 for Approximation Algorithms: New directions and Techniques, $400,091 (July ’03 - June ’09).

• DOE Early Career Principal Investigator Award for Algorithmic Techniques for Massive Data Sets, $256,817 (Sept ’02 - Aug ’05).

• NSF ITR award 0205594 for New directions in Clustering and Learning (co-PI’s Sanjeev Arora, Amit Sahai and Yoram Singer), $1,530,000 (July ’02 - June ’07).

AWARDS AND HONORS

• 10 year best paper award, VLDB 2017.


• Distinguished Alumnus Award, IIT Bombay, 2016.


• Howard B. Wentz Jr. junior faculty award, 2004.


• Alfred P. Sloan Fellowship, 2003.


Chelsea Finn
353 Jane Stanford Way
Stanford, CA 94305
cbfinn@cs.stanford.edu
http://ai.stanford.edu/~cbfinn

Current Positions
Stanford University, Computer Science Department and Electrical Engineering 2019 – present
Department, Assistant Professor

Google, Inc., Brain Team, Research Scientist 2019 – present

Education
University of California, Berkeley, PhD 2014 – 2018
Thesis: “Learning to Learn with Gradients”.
Department of Electrical Engineering and Computer Science

Massachusetts Institute of Technology, Bachelor of Science 2010 – 2014
Electrical Engineering and Computer Science

Honors and Awards
IEEE RAS Early Academic Career Award in Robotics and Automation 2022
Awarded to two early-career academics for major impact on robotics & automation
For pioneering contributions in deep robotic learning, and their application
to vision-based robotic manipulation

ONR Young Investigator Award 2021
Awarded to 38 early-career faculty

Samsung AI Researcher of the Year 2020
Awarded to five early-career researchers in AI worldwide

CoRL Best Paper Award 2020
For the paper “Learning Latent Representations to Influence Multi-Agent Interaction”

Intel Rising Star Faculty Award 2020
Awarded to ten early-career professors worldwide

Microsoft Faculty Fellowship Award 2020
Awarded to five early-career professors in North America

ACM Doctoral Dissertation Award 2019
Awarded to the best doctoral dissertation in computer science and engineering, worldwide

MIT TR35 Innovator Award 2018
Awarded to 35 innovators under 35 worldwide

Rising Stars in EECS 2017
Awarded to 70 EECS graduate and postdoctoral women

C.V. Ramamoorthy Distinguished Research Award 2017
For outstanding contributions to a new research area in computer science and engineering

ICRA Best Cognitive Robotics Paper Finalist 2017
For the paper “Deep Visual Foresight for Planning Robot Motion”

Tong Leong Lim Pre-Doctoral Prize 2016
For achieving the highest distinction in the pre-doctoral examination
Fei-Fei Li
(Publish as L. Fei-Fei)
Sequoia Professor of Computer Science
Stanford University

353 Jane Stanford Way, | Stanford, CA 94305
+1-650-725-3860 | feifeili@cs.stanford.edu | svl.stanford.edu
(Last update: 2020.10)

EDUCATION

CALIFORNIA INSTITUTE OF TECHNOLOGY          Pasadena, CA, U.S.A.
Doctor of Philosophy in Electrical Engineering (Ph.D) 2001 - 2005
● Advisors: Pietro Perona (primary) and Christof Koch (secondary)
● Dissertation: “Visual Recognition: Computational Models and Human Psychophysics”

CALIFORNIA INSTITUTE OF TECHNOLOGY          Pasadena, CA, U.S.A.
Master of Science in Electrical Engineering 2001 - 2003
● Advisors: Pietro Perona (primary) and Christof Koch (secondary)

PRINCETON UNIVERSITY                      Princeton, NJ, U.S.A.
Bachelor of Arts in Physics 1995 - 1999
● Graduated with High Honors
● Certificates (equivalent of Minor) in Applied & Computational Mathematics, and Engineering Physics

WORK EXPERIENCES - ACADEMIA

STANFORD UNIVERSITY                        Stanford, CA, U.S.A.
Sequoia Professor, Computer Science Department 2019.06 - Present
Denning Co-Director, Stanford Human-Centered AI Institute (HAI) 2018.10 - Present
Professor, Computer Science Department 2018.01 - 2019.06
Director, Stanford Artificial Intelligence Lab (SAIL) 2013 - 2018.10
Courtesy Professor, Psychology Department 2013 - Present
Associate Professor, Computer Science Department 2012.08 - 2017.12
Assistant Professor, Computer Science Department 2009.06 - 2012.08

PRINCETON UNIVERSITY                      Princeton, NJ, U.S.A.
Assistant Professor, Computer Science Department 2007.01 - 2009.06
Associated Assistant Professor, Psychology Department 2007.01 - 2009.06

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN       Urbana-Champaign, IL, U.S.A.
Assistant Professor, Electrical and Computer Engineering Department 2005.08 - 2006.12
Associated Assistant Professor, Psychology Department 2005.08 - 2006.12

WORK EXPERIENCES -- NON-PROFIT & PUBLIC SERVICES (Selected)
See Additional Work Experiences for more

AI4ALL - Non-profit organization for AI education and diversity Oakland, U.S.A.
Co-Founder & Chairperson of the Board 2017.03 - present
• Co-Founder & Director of precursor program -- SAILORS (Stanford AI Lab Outreach Summer program) (2015 - 2017)

Committee on Science, Technology, and Law, National Academy of Science
Member
2020.03 - present

Commission of Future of Work by Statement of California
Commissioner
Sacramento, CA, U.S.A.
2019.09 - present

Computer Vision Foundation (CVF) - *Non-profit organization for international Computer Vision research*
Member, Board of Directors
2019.06 - present

The AI International Scientific Board by French President’s Office - *an international group of AI experts to advise on AI-related issues to the French President’s office*
Member
France
2019.06 - present

Global AI Council by World Economic Forum - *an international group of AI experts to discuss AI-related technical, ethical and governance issues*
Member
U.S.A./Switzerland
2019.04 - present

Scientific Committee, Future Prize - *Non-government, Non-Profit organization to award basic science research breakthroughs in greater China region*
Member
China
2017.06 – 2019.09

Scientific Advisory Board (Fachbeirat), Max Planck Institute of Informatics
Member
Saarbrucken, Germany
2017 - 2020

External Advisory Committee, Center for Brains, Minds and Machines, MIT
Member
Cambridge, MA, USA
2017 - 2019

WORK EXPERIENCES -- INDUSTRY (Selected)

See Additional Work Experiences for more

TWITTER INC.
San Francisco, CA, U.S.A.
Member, Board of Directors
2020.05 - Present

ZEBRA-MEDICAL
Advisor
Israel
2019.01 - present

GOOGLE INC.
Mountain View, CA, U.S.A.
Chief Scientist of AI/ML, Vice President, Google Cloud AI
2017.01 - 2018.09

- As part of an academic sabbatical leave from Stanford
- Co-founder of Cloud AI business unit
- Overall responsibility of product engineering, product management, basic science research and thought leadership
- Grow the Cloud AI team, business, and partnership
- Chief architect of major Google Cloud AI products such as AutoML Vision, NLP, Translation
- Business leader responsible for acquisition of Kaggle.com
- Business leader responsible for establishing Google AI’s China Center in Beijing

ANDREESSON & HOROWITZ INC.
Professor in Residence
2016.05 - 2017.01

MICROSOFT RESEARCH CENTER CAMBRIDGE
Cambridge, UK
HONORS & DISTINCTIONS

2020  Member, National Academy of Medicine (NAM)
2020  Member, National Academy of Engineering (NAE)
2020  Member, Council on Foreign Relations (CFR)
2019  Technical Leadership Abie Award, AnitaB.org (“most prestigious award and celebrates a woman who led or
developed a product, process, or innovation that made a notable impact on business or society.”)
2019  IEEE PAMI-TC Longuet-Higgins Prize (“recognizes papers published at CVPR ten years ago that have
stood the test of time.”)
2019  Further Award, National Geographic (“recognizes a leader whose work is uniquely innovative, timely, and
impactful—someone who has boldly pushed the boundaries of his or her field, and who serves as an
outstanding ambassador for that breakthrough work.”)
2019  Best Paper Award, International Conference on Robotics and Automation (ICRA)
2018  Fellow, Association for Computing Machinery (ACM)
2018  One of “the World’s 50 Top Women in Tech”, Forbes Magazine
2017  WITI@UC Athena Award for Academic Leadership, University of California
2017  One of Seven Women in Technology honorees, Elle Magazine
2016  J.K. Aggarwal Prize, International Association for Pattern Recognition (IAPR)
2016  One of the 40 “The great immigrants,” Carnegie Foundation
2016  IEEE PAMI Mark Everingham Prize
2016  Pioneer in AI Research Award, NVidia
2015  One of the Leading Global Thinkers of 2015, Foreign Policy
2014  IBM Faculty Fellowship Award
2012  W.M. Keck Foundation Faculty Scholar
2012  Yahoo! Labs Faculty Research Engagement Program (FREP) Award, Yahoo!
2012/11  1st Place in PASCAL VOC Action Classification Challenge (internationally recognized computer vision
competition)
2011  Alfred P. Sloan Fellowship (highly prestigious fellowship awarded to “best scholars in [the current]
generation”)
2010  Best Paper Honorable Mention, IEEE Conference on Computer Vision and Pattern Recognition (CVPR)
2010  Google Research Award
2009  Stanford Terman Fellowship
2009  NSF CAREER Award
2008  Google Research Award
2007  1st Place in Semantic Robot Vision Challenge Software League - NSF / AAAI sponsored visual recognition
competition
2006  Microsoft Research New Faculty Fellowship - highly selective, awarded to “the best new professors in
computing disciplines today”
2005  IEEE ICCV Best Short Course Prize (with R. Fergus and A. Torralba)
1999 - 2002  National Science Foundation Postgraduate Fellowship
1999 - 2002  Paul and Daisy Soros Fellowship for New Americans
1999 - 2000  Princeton University Martin Dale ’53 Fellowship
1999  Princeton University Kusaka Memorial Prize in Physics

SPEECHES & SEMINARS (Selected)

“Artificial Intelligence: A Deeply Human Pursuit”
2019.10  Keynote, Society for Neuroscience annual conference, Chicago, USA
2017.10  Keynote, Grace Hopper Conference, FL, USA
Chelsea Finn
cbffin at cs dot stanford dot edu

I am an Assistant Professor in Computer Science and Electrical Engineering at Stanford University. My lab, IRIS, studies intelligence through robotic interaction at scale, and is affiliated with SAIL and the ML Group. I also spend time at Google as a part of the Google Brain team.

I am interested in the capability of robots and other agents to develop broadly intelligent behavior through learning and interaction.

Previously, I completed my Ph.D.

Pat Hanrahan
CANON USA Professor

Computer Graphics Laboratory
Computer Science and Electrical Engineering Departments
School of Engineering
Stanford University

Gates Computer Science Building, Room 370 3B
Stanford, CA 94305-9035

Fei-Fei Li

SEQUOIA CAPITAL PROFESSOR, CO-DIRECTOR OF THE STANFORD INSTITUTE FOR HUMAN-CENTERED ARTIFICIAL INTELLIGENCE (HAI) AND PROFESSOR, BY COURTESY, OF OPERATIONS, INFORMATION AND TECHNOLOGY AT THE GRADUATE SCHOOL OF BUSINESS
Computer Science

Bio
Dr. Fei-Fei Li is the inaugural Sequoia Professor in the Computer Science Department at Stanford University, and Co-Director of Stanford’s Human-Centered AI Institute. She served as the Director of Stanford’s AI Lab from 2013 to 2018. And during her sabbatical from Stanford from January 2017 to September 2018, she was Vice President at Google and served as Chief

Corporate and Advisory Boards

- Google, Board of Directors, April 2004-present, Chair 2018-present.
- Founding Chairman, Board of Directors, Atheros (now part of Qualcomm), 1998-2010.
- Technology Advisory Board, Microsoft Corporation, 1992-96.

Public Service and Nonprofit Activities

- Member, Strategic Council on Research Excellence, Integrity, and Trust, National Academy of Sciences, 2021-present.
- Board of Directors, Chan Zuckerberg Biohub, 2015-present.
- Board of Trustees, Gordon and Betty Moore Foundation, 2012-present.