Corporate influence and the academic computer science discipline. [2: MIT, hacks and hustlers]

Camille Akmut

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abstract

Prosopography of a major academic center for computer science, with a focus on corporatization and corruption.

Introduction

The entire computer science faculty of MIT is submitted to a sociological analysis in this work.

For anyone born in the late 20th c., MIT is associated with one event more than any other : the death of Aaron Swartz. No other event defines it in the eyes of the public as much. They could write a thousand more reports yet it would not change anything.

MIT might have, once, been connected to figures such as Shannon, it is now intimately linked to Koch, Schwarzman, Epstein, Ito... – a list of scum so long, having reached such ungodly proportions, that make it nearly impossible, and certainly unpleasant, to keep track of.

It might also have been, albeit many decades ago, associated with early "hacker" culture, but no more. Evidently, things have changed. (Hal Abelson, who must have gone senile, works at Google, Gerald Sussman is a "Panasonic" professor...)

So, what does exactly MIT represent today? Not much : If one believes the motto of its Electrical engineering and Computer science Department, it is "*Where the future is invented*", a completely empty phrase, befitting of a hollow palace; that notably does not exclude a dark future...

If this author had to make a bet out of which American institution a technology unleashing the dystopia long dreamed up by cyberpunk authors might come out of, they would say : Harvard, (in particular the medical and biological centers), MIT or Stanford.

The future *is* in fact being created at those sites, but it is not one that is desirable : privatized, profit-driven, competitive more so than cooperative, and obsessed with reputation and image far beyond what is reasonable : in essence, dehumanized.

These Google'd up, Amazon'ified, Microsoft-employed and certified professors with no shame represent one dimension of that twisted, bizarre, tragic-comic and folly ridden future.

Hustlers befitting the last paragraph of this untimely introduction should not end without some, urgently needed, gangster rap advice,
Check yo self before you wreck yo self!

Abbreviations found in this work include,

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Pr. = Professor
Ass. = Assistant, implied Professor
Dev. = Development, implied a Chair type
Co. = College
f. = fellowship
aw. = award
sch. = scholarship
fo. = founder
con. = consultant (advisor)
Sec. = Security
G = Google
F = Facebook
AMZ = Amazon
MS = Microsoft
DEC = Digital Equipment Corporation
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(As -not merely- a convention, abbreviations for companies were capitalized, reflecting also their importance...)

	Named, sponsored chairs, positions	Corp. funding		Corp. employment, role	PhD
Hal Abelson	Class of 1922 Professor		x	G	MIT
Anant Agarwal	[Professor] ; "*CEO, edX*" (inv. ord.)		x	edX/2U; Tilera [fo.]	Stanford
Pulkit Agrawal	Steven and Renee Finn Career Dev. Pr. [Ass.]	AMZ, Salesforce aw.	x	Cavium, AI Foundry [fo.]	Berkeley
Mohammad Alizadeh	[Associate]	G, F award	x	MS, Cisco etc.	Stanford
Saman Amarasinghe	[Professor]		x	Determina/VMWare [fo.]	Stanford
Arvind	Charles W. & Jennifer C. Johnson Professor	Motorola ('collab.')	x	Sandburst/Broadcom [fo.]	Minnesot
Hari Balakrishnan	Fujitsu Professor	Bose award	x	Cloudseal/F, Meraki/Cisco [con]	Berkeley
Adam Belay	Jamieson Career Development Pr. [Ass.]		x	G	Stanford
Robert Berwick	[Professor]				MIT
Michael Carbin	[Associate]	MS fellowship	x	MS	MIT
Anantha Chandrakasan	Vannevar Bush Professor	IBM award(?)			Berkeley
Adam Chlipala	[Associate]		x	MS, Jane Street Capital	Berkeley
Isaac Chuang	[Professor]		x	IBM	Stanford
Henry Corrigan-Gibbs	Douglas Ross 1954 Career Dev. Pr. [Ass.]	G, F (+ DoD etc.)	x	MS	Stanford
Constantinos Daskalakis	[Professor]	G award, MS f.	x	MS	Berkeley
Erik Demaine	[Professor]	Bose award			Waterloo
Srini Devadas	Edwin Sibley Webster Professor		x	DEC, Sandburst; Synopsys [con]	Berkeley
Frederic Durand	Amar Bose Professor	MS f.			Grenoble
Joel Emer	[Professor]		x	Intel, Nvidia, DEC, Compaq	Illinois
Mohsen Ghaffari	[Associate]	G award			MIT
Manya Ghobadi	TIBCO Founders Professor [Ass.]	G award (4)	x	G, MS	Toronto
David Gifford	[Professor]				Stanford
Shafrira Goldwasser	RSA Professor	IBM award			Berkeley
W. Eric L Grimson	Bernard M. Gordon Professor				MIT
John Guttag	Dugald C. Jackson Professor		x	"*extensive industrial experience*"	Toronto
Song Han	[Assistant]	AMZ, F, Nvidia aw.	x	Google Brain	Stanford
Frederick Hennie III	[Professor]				MIT
Sam Hopkins	[Assistant]	MS f.	x	MS	Cornell
Daniel Huttenlocher	Henry Ellis Warren 1894 Pr.; Schwarzman Co.		x	"fintech" CTO; AMZ etc.	MIT
Piotr Indyk	Thomas D. and Virginia W. Cabot Pr.	Packard f.			Stanford
Daniel Jackson	[Professor]	IBM award	x	Logica	MIT
M. Frans Kaashoek	Charles A. Piper 1935 Professor		x	Sightpath/Cisco, Mazu Net [fo.]	Vrije Uni
David Karger	[Professor]	Packard f.	x	Akamai, Bell, Xerox	Stanford
Dina Katabi	Thuan 1990 and Nicole Pham Professor				MIT
Manolis Kellis	[Professor]		x	Xerox	MIT
Tim Kraska	[Associate]	G,MS,Intel,Siemens	x	G	ETHZ
Butler Lampson	[Adjunct]		x	MS, Xerox, DEC	Berkeley
Steven Leeb	Emanuel Landsman 1958 Professor	Bose			MIT
Charles Leiserson	Edwin Sibley Webster Professor		x	Akamai; Cilk Arts [fo.]	Carnegie
Barbara Liskov	Insitute Professor [sic!]		x	Mitre; HP, Cadence, DEC [con]	Stanford
Nancy Lynch	NEC Professor ['Software Science']				MIT
Samuel Madden	[Schwarzman] College of Computing Professor	IBM award	x	Cambridge Mobile Tele, Trifacta	Berkeley
Aleksander Madry	Cadence Design Systems Professor	G award	x	MS	MIT
Wojciech Matusik	[Professor]			Adobe, Disney, Mitsubishi	MIT
Muriel Médard	Cecil H. Green Professor		x	CodeOn [fo.]	MIT
Silvio Micali	Ford Foundation Professor		x	many [fo.]	Berkeley
Robert Miller	[Professor]	MS sch.	x	MS, DEC	Carnegie
Robert Morris	[Professor]		x	Y Combinator [fo.]; Meraki [con]	Harvard
Stefanie Mueller	[Associate]	MS f. (0.2 Mill.)			Hasso Pl
Anand V Natarajan	ITT Career Dev. Associate Professor				MIT
Alan Oppenheim	Ford Professor	Bose award	x	Chevron, Lockheed, Raytheon...	MIT
Asu Ozdaglar	MathWorks Professor; Schwarzman Co.	MS, NATO f.			MIT
Jonathan Ragan-Kelley	Edgerton Career Dev. Assistant Pr.		x	G	MIT
Manish Raghavan	[Assistant + Sloan Management]	MS f.			Cornell
Martin Rinard	[Professor]	AT&T award	x	Ikan Systems, Polygen	Stanford
Ronald Rivest	Institute Professor	NEC prize	x	RSA Sec/DellEMC, Verisign[fo.]	Stanford
Ronitt Rubinfeld	Edwin Sibley Webster Professor		x	NEC, IBM	Berkeley
Daniela Rus	Andrew '56 Erna Viterbi Pr.; Schwarzman Co.	Toyota	x	Mitre	Cornell
Daniel Sanchez	[Associate]	G, F aw., HP f.	x	G, Intel	Stanford
Arvind Satyanarayan	[Assistant]	G aw. f.	x	Google Brain, Apropose [fo.]	Stanford
Nir Shavit	[Professor]				Hebrew U
Julian Shun	[Associate]	G aw., F fellowship			Carnegie
Vincent Sitzmann	[Assistant]		x	Google AI	Stanford
Armando Solar-Lezama	[Professor]				Berkeley
Justin Solomon	[Associate]	G, AMZ aw., IBM	x	Mitre, Pixar	Stanford
Michael Stonebraker	[Adjunct]		x	many: Relational Technology[fo]	Michigan

Gerald Sussman	Panasonic Professor	Bose award			MIT
Vivienne Sze	[Associate]	G,F,Qualcomm aw.	x	Texas Instruments	MIT
Peter Szolovits	[Professor]				Caltech
Vinod Vaikuntanathan	[Professor]	MS, IBM f.	x	MS, IBM	MIT
Ryan Williams	[Professor]	G award, MS f.	x	IBM	Carnegie
Virginia Vas. Williams	[Associate]				Carnegie
Mengjia Yan	Homer A. Burnell Career Dev. Pr.		x	Nvidia	Illinois
Nickolai Zeldovich	[Professor]	G,Quanta Computer	x	SkyBlue (moka5) [fo.]	MIT
Victor Zue	Delta Electronics Professor		x	"*many multinational corp.*"	MIT

1. Corporate influence : named, sponsored chairs or positions

fig. MIT CS faculty - professor levels

Professors	53
Associate	11
Assistant	9 (incl. 4 'Career Development' Pr.s)
Adjunct	2

n,t=75

fig. MIT CS faculty : sponsored, named chairs

Professors	32 of 53	(60%)
Total*	36 of 57	(63%)

* (incl. 'Career Development' Pr.s)

fig. Sources of funding for MIT CS

	likely source of funding or their usage
Schwarzman e.g. College of Computing	Blackstone
Amar Bose	in- famous headphones worn in loud open offices made popular by tech companies
Cadence	Software company
Panasonic	Gerald Sussman's chair (whose duo with Abelson described computer 'science' as not a science)
Thomas Cabot	fail son, "worked" at his Father's company, a real self-made type
Thuan Pham	Uber CTO...

2. Education : exclusive private educations and social distance

fig. MIT CS faculty, PhD origin institution

MIT	24 (32%)
Stanford	17 (22%)
Berkeley	12 (16%)
CMU	5
Cornell	3
each two (4)	Illinois, Toronto
each one (10)	Minnesota, Waterloo, Grenoble, Vrije Univ., ETHZ, Harvard, Hasso Plattner, Hebrew Univ., Michigan, Caltech

n,t=75

fig. MIT CS faculty, PhD origin institution : geographical distribution

North America	70	(93%)
— USA	67	(89%)
Europe	4	(5%)
Israel	1	

n,t=75

fig. MIT CS faculty, PhD origin institution : US public vs. private

Private	51	(76%)
Public	16	

n,t=67

1/3 of MIT CS faculty have doctorate degrees from MIT : if undergraduate degrees and masters were accounted for, that proportion might reach about half. 90% of doctorate degrees held by MIT CS faculty were obtained from a US American institution. Of all doctorate degrees MIT and Stanford alone account for more than half MIT CS faculty educational background.

Among MIT CS faculty with doctorate degrees from US institutions, almost 80% of those are from a private university! It has to be hypothesized that this creates a very peculiar atmosphere, where private elite education cumulated with frequent private employment must create blind angles for these new age, and brave new world scholars, distinguished and less distinguished alike. This can include : a distance from the "least of these", a differential attitude for those who do not share their extremely homogeneous characteristics, and more importantly a lack of caring for certain topics that may be broadly classified as "social" (i.e. the social aspects of computer science and technology).

Corrigan-Gibbs had Dan Boneh for advisor at Stanford (which could not have hurt in getting an assistant professor position, across the country, at MIT). Kaashoek, one of few faculty with a European education, had for advisor Tanenbaum at Vrije.

3. Academic exchange and university resources as a jumping start for commercial activities

Computer science professors' best kept secret is the use of university resources as a jumping start for commercial activities : findings - which are often only possible through team work, partial or full public funding, etc. - are then turned into businesses whose profits in the end are however rarely shared equally by the entire community :

Hari Balakrishnan, exempli gratia, has reasons to smile on his academic profile page, as he has clearly mastered that fine art :

Commercial activities

- Founder and CTO of **Cambridge Mobile Telematics** (CMT). A spin-off from the CarTel project, CMT develops innovative mobile sensing technology and data analytics to improve driving behavior and make roads safer around the world. Its products are used daily by drivers worldwide in popular smartphone applications. In 2013, CMT launched the DriveWell mobile app, providing an accurate, scalable, and customizable telematics solution for automobile insurance providers and their customers. DriveWell not only measures driving behavior, but also helps users become better drivers. It provides a scalable technology for traditional usage-based insurance, but also allows insurers to think in terms of behavior-based models.
- Advisor to Opaque Systems, Ikigai Labs, streamAlive, Prescient Devices, Walrus Security, Flowmill (acquired by Splunk), Valtix, Yugabyte, Perch, Lumo, Cloudseal (acquired by Facebook)
- Advisor, Meraki Networks (acquired by Cisco), 2006-2012. Meraki started by commercializing wireless mesh networking based on MIT's Roofnet project. It then pioneered cloud-based remote network management of deployed wireless access points in its products.
- Co-founder, StreamBase Systems (acquired by TIBCO), 2003-2008. StreamBase commercialized the Aurora and Medusa stream processing systems based on research conducted at MIT, Brown, and Brandeis. It developed a leading product for processing massive amounts of streaming data, with success particularly in the financial services.

Il. Balakrishnan web site, "commercial activities" section

(Note Samuel Madden, another MIT CS faculty, works for the first of listed companies - which feels out of place, and is possibly a conflict of interest.)

A question that, in the presence of such widespread commercialization of science, is not least if professors tend to focus on problems that can turn a profit once applied as opposed to working on long term science with unclear commercial potential, but represent a benefit for humanity if solved.

However, on the other hand, when University life has served its purpose and starts getting in the way (of profit) it is just as easily discarded :

"*In 2000, Arvind took a two-year leave of absence to start Sandburst, a fabless semiconductor company to produce a chip set for 10G-bit Ethernet routers. He served as its President until his return to MIT in September 2002. Sandburst was acquired by Broadcom in 2006.*" [Arvind website]

Another heavyweight of MIT EE and Computer science, Victor Zue, seems to be more flexible :

"*Outside of MIT, Victor has consulted for many multinational corporations, and he has served on many planning, advisory, and review committees for the US Department of Defense*" [Zue website]

combining, juicy, corp. consulting with DoD work.

3. Influence of money : Grants used as indicator for hiring researchers, and judging research value

Grants, their origin, and amount in particular appear to be increasingly used as a criterion for the selection of professors :

Mohsen Ghaffari, exempli gratia, as he was about to join MIT faculty was presented in the following terms :

"*Mohsen Ghaffari will join the Department of Electrical Engineering and Computer Science in April 2022. (...) Before coming to MIT, he was on the faculty at ETH Zurich, where he received a prestigious European Research Council Starting Grant.*" [MIT Engineering page]

But here, "prestigious" can also be understood as a proxy for how much money - preferably in the millions - a professor can summon: this grant, the only one mentioned, is the highest amount Ghaffari had been able to get hitherto, 1.5 Million.

Ghaffari understands the rules of the game, and uncovers them at the same time, for it is one of the first things he decided to mention in his CV (presumably while shopping for professorships) : before any publications, before any research, evidently fortune getting in the form of grants is now a major, if not principal decision factor when hiring, or even judging the quality of research :

Mohsen Ghaffari

https://people.inf.ethz.ch/gmohsen/
ghaffari@inf.ethz.ch

RESEARCH INTERESTS	▶ Theoretical Computer Science / Algorithm Design and Analysis,	
	− Focus: Distributed Algorithms, Parallel Algorithms, Network Algorithms, & Randomized Algorithms.	
EMPLOYMENT	▶ ETH Zurich	
	− Assistant Professor (tenure-track) of Computer Science	since Fall 2016
EDUCATION	▶ Massachusetts Institute of Technology	
	− Ph.D. in Electrical Eng. & Computer Science, GPA: 5.00/5	2016
	− S.M. in Electrical Eng. & Computer Science, GPA: 5.00/5	2013
HONORS, AWARDS, & MAJOR GRANTS	− European Research Council Starting Grant, 2019–2024, 1 500 000 Euros.	
	− Swiss National Foundation Project Grant, 2019–2023, 720 000 Swiss Francs.	
	− Google Faculty Research Award, 2019.	
	− Best Student Paper award at Int'l Symp. on Princ. of Distributed Computing (PODC), 2019.	

Il. Ghaffari CV, first page

Stefanie Mueller, her PhD obtained at Hasso Plattner, Institute named after the founder of SAP, advertises and sells herself with funding totaling "3.8 million US Dollars" [CV, p. 8]

Similarly, Song Han, exempli gratia, Professor-soon-to-be is described, (or describes himself in the third person...),

> "Song Han is an Associate Professor (starting July 1, 2022) at MIT's EECS (...) Song received ... multiple faculty awards from Amazon, SONY, Facebook, NVIDIA and Samsung. Song was named "35 Innovators Under 35" by MIT Technology Review" [Han website]

Increasingly, press reception and news coverage of research - never a "naturally" occurring phenomenon, but instead reliant on social capital and networking - is becoming another relevant criterion for determining the worth of science, and hence scientists.

In some CVs entire sections were dedicated to it. As for MIT faculty, they keep bringing up the MIT Technology Review's "Top 35 Under 35" - as its sole existence and purpose wasn't to make publicity for, coincidentally, MIT-affiliated people...

4. Corporate influence : industry orientation as positive feature of new age professors and students

John Guttag, known to the wide public for his introductory programming books, and a pedagogue, thought well to have his web site feature the mention :

> "In addition to his academic activities, Professor Guttag has extensive industrial experience. He is currently Chairman of the Board of Directors and Chief Scientist of HEALTH[at]SCALE Technologies and on the Board of Directors of Frontiir."

Modern computer science teachers, it is implied, would not be complete without that - "extensive" - industrial experience. (And, mastery of third-person prose writing...)

A previous state of Guttag's web site had this paragraph replaced with the following :

> "Professor Guttag currently serves on the technical advisory board of Vanu, Inc., on the Board of Directors of Empirix, and on the Board of Trustees of the MGH Institute of Health Professions." [28/03/2010]

Huttenlocher, exempli gratia, calls this - all things considered new - phenomenon "a mixed background" :

"*He [Huttenlocher] has a mix of academic and industry background, having been a Computer Science faculty member at Cornell, researcher and manager at the Xerox Palo Alto Research Center (PARC), and CTO of a fintech startup. He currently serves as the board chair of the John D. and Catherine T. MacArthur Foundation and as a member of the board of Corning Inc. and Amazon.com.*" [Huttenlocher website bio.]

Further, Hutterlocher presents himself as someone whose "*research often bridges ... between academia and industry.*", ibid.

Hopefully his students will benefit in their humanistically-oriented, well rounded education, and elevation if one dare say, at MIT of plenty of FinTech enrichment and Amazon experience, and least etiquette..... (Red wine or Bitcoin talk first?)

Muriel Medard calls it, as many in her profession, elegantly "technology transfer" and even seems to see it as a service rendered to humankind,

"*Muriel has over sixty US and international patents awarded, the vast majority of which have been licensed or acquired. For technology transfer, she has co-founded CodeOn, for which she consults, and Steinwurf, for which she is Chief Scientist.*" [Medard RLE page]

(see also Micali's CV)

A university professor, who does seem to understand what a university education is supposed to accomplish, notes cheeky cheery, in his vita :

"*Enrollment in 6.813/6.831 has been strong, initially 35 students in 2003 and rising to over 200 students in 2014, indicating a substantial interest for this material among the students. Industry demand for these skills is likewise strong. Alumni of the course who went on to jobs at Google, Yahoo, Microsoft, Oracle, and Facebook have told me that they used what they learned in 6.831 when interviewing for their jobs, and have drawn on it many times since.*"
[CV Miller, p. 7 - it's some UI class]

Too bad companies don't find free software, especially in its most radical aspects, as useful; or original hacker ideals and culture and languages, otherwise other programming languages and paradigms would be taught and used at the same rate as Java, Javascript and object-orientation (the un-holy trinity of the modern developer).

5. Corporate influence : donations in kind

 Il. Keysight "donation" of 120 osciloscopes to MIT

Now it is left as an exercise for the reader to guess which brand of oscilloscopes will be used by the next two or three generations.

6. Apoliticism and -moralism as general ethos

MIT's faculty has the distinguished feature of having among its ranks individuals who seem to be simultaneously among the smartest and dumbest alive - by which we mean they combine high academic achievement with a total lack of political education, or any minimal morals.

Herr Sitzmann sells himself as a "top 3% of class" [CV, p. 1] in his native university in Bavaria, and then used his chops and smarts to join Google in 2020, and within Google the AI division! (at which point anyone reading the press, even vaguely, knew better). In that way, he is no different from his colleagues at MIT or Stanford, his PhD institution, who seem to have no qualms about working for projects like Google Brain.

Conclusion

MIT CS faculty live in a strange microcosm world : exclusive private education, increasingly connected to ever more exclusive social origins (one of the 'scholars' is the gold spoon daughter of a corrupt politician, another is the offspring of doctors, etc.); across the board employment in corporations like Google, Facebook, Jane Street; professorships funded by Capital firms; colleges paid for by Blackstone! Ties to Epstein and Ito (Abelson is very proud of his photo); what a Dreck place!

We must end an already untimely study on one last bitter hard-to-swallow note, so take it on the road, :

A capitalist world produces a university in its image, and there is no reason to believe that it should stay untouched from the logic of capitalism, while it reaches all other spheres of life, spreading destruction everywhere. Capitalists, smart and organized, pick those critics they can best deal with and elevate them ("ethical AI" researchers all the way to middle-aged liberal SF writers obsessed with reformism).

Celebrated Timnit Gebru is a *pure product* of that rotting culture : PhD at Stanford under Fei-Fei Li, (one of the absolute most morally bankrupt computer scientists of modern times, from whom she learned all the ropes of her trade), following which she joined the usual trio of Apple, Microsoft and finally Google – coming to a miraculous awakening, after having profited so greatly from the tech industry, in late 2020! Only liberal journalists, working for such mediocre newspapers at the NYT or Guardian, could fall for her ridiculous 'tech rebel' image. Gebru, through and through, is a copy conform result of her culture, which led her from Stanford to Google like so many before her, and there is no doubt she would still be working there where circumstances not different. Her so-called revolt was never based on principle. Did Madame Gebru not read the press before 2021? Did this ironic and paradoxical darling of journalists not see all the articles about Big Tech before? Was she in a coma in 2013? Gebru, like her peers (with whom she shared not only the same education but also the same social origins as the dotted daughter of two intellectuals), is defined by being smart and dumb at the same time : who else in their right mind would work, at Google and Microsoft of all places!, on "ethics in AI"...

Ref.

Again, most information were obtain directly through the MIT web site or via hyperlinking - exceptions are regularly indicated.

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Hal Abelson            https://groups.csail.mit.edu/mac/users/hal/bio.html ; https://groups.csail.mit.edu/mac/users/hal/doing.html
Anant Agarwal  people.csail.mit.edu/agarwal/ ; 2u.com/about/leadership/anant-agarwal/ ; tilera.com/about_tilera/board_of_directors
Pulkit Agrawal         https://people.csail.mit.edu/pulkitag/data/pulkit_CV_current.pdf [4 pp.]
Mohammad Alizadeh      https://people.csail.mit.edu/alizadeh/documents/Alizadeh-CV.pdf [7 pp.]
Saman Amarasinghe      https://people.csail.mit.edu/saman/
Arvind                 https://www.csail.mit.edu/person/arvind ; http://csg.csail.mit.edu/Users/arvind/
Hari Balakrishnan      http://nms.csail.mit.edu/~hari/
Adam Belay             http://www.abelay.me/
Robert Berwick         https://humanbrains.fondazioneprada.org/en/speakers/robert-c-berwick/
Michael Carbin         https://people.csail.mit.edu/mcarbin/misc/cv.pdf [8 pp.]
Anantha Chandrakasan   https://chandrakasan.mit.edu/about/
Adam Chlipala          http://adam.chlipala.net/cv.pdf [18 pp.]
Isaac Chuang           https://www.rle.mit.edu/people/directory/isaac-chuang/
Henry Corrigan-Gibbs   https://people.csail.mit.edu/henrycg/
Constantinos Daskalakis  https://www.csail.mit.edu/person/costis-daskalakis ; https://people.csail.mit.edu/costis/
Erik Demaine           https://erikdemaine.org/cv.pdf [49 pp.]
Srini Devadas          http://people.csail.mit.edu/devadas/cv.html
Frederic Durand        https://www.csail.mit.edu/person/fredo-durand ; https://people.csail.mit.edu/fredo/DurandCV.pdf [5 pp.]
Joel Emer              https://people.csail.mit.edu/emer/
Mohsen Ghaffari        https://people.inf.ethz.ch/gmohsen/ ; https://people.inf.ethz.ch/gmohsen/Short-CV.pdf
Manya Ghobadi          https://people.csail.mit.edu/ghobadi/mg-cv.pdf
David Gifford          https://be.mit.edu/directory/david-gifford
Shafi Goldwasser       https://people.csail.mit.edu/shafi/wordpress/wp-content/uploads/Shafi_Goldwasser_CV_2014.pdf
Eric Grimson           http://www.csail.mit.edu/user/807 ; http://people.csail.mit.edu/welg/
John Guttag            https://people.csail.mit.edu/guttag/
Song Han               https://songhan.mit.edu/
Frederick Hennie III   'Iterative Arrays of Logical Circuits' (1961), "Preface". [then, "Instructor in Electrical Engineering"]
Sam Hopkins            https://www.samuelbhopkins.com/cv.pdf [5 pp.]
Daniel Huttenlocher    https://web.mit.edu/hutt/www/
Piotr Indyk          people.csail.mit.edu/indyk/ ; csail.mit.edu/biographies/PI/bioprint.php?PeopleID=806 ; csail.mit.edu/user/1540
Daniel Jackson         https://web.mit.edu/pccs/people/jackson.html ; csail.mit.edu/biographies/PI/bioprint.php?PeopleID=166
M. Frans Kaashoek      https://people.csail.mit.edu/kaashoek/
David Karger           https://people.csail.mit.edu/karger/resume.pdf [2 pp.]
Dina Katabi            https://www.macfound.org/fellows/class-of-2013/dina-katabi#searchresults
Manolis Kellis         https://web.mit.edu/manoli/www/resume.pdf [40 pp.]
Tim Kraska             https://people.csail.mit.edu/kraska/
Butler Lampson         https://www.csail.mit.edu/person/butler-lampson ; http://bwl-website.s3-website.us-east-2.amazonaws.com/
Steven Leeb            https://meche.mit.edu/sites/default/files/cv/sbleeb_CV.pdf [4 pp.]
Charles Leiserson      https://www.csail.mit.edu/person/charles-e-leiserson ; people.csail.mit.edu/cel/Leiserson-CV.pdf [41 pp.]
Barbara Liskov         https://pmg.csail.mit.edu/~liskov/newcv-09.pdf [32 pp.]
Nancy Lynch            https://www.csail.mit.edu/person/nancy-lynch
Samuel Madden          http://db.csail.mit.edu/madden/
Aleksander Madry       https://madry.mit.edu/docs/Aleksander_Madry_CV.pdf [4 pp.]
Wojciech Matusik       https://cdfg.csail.mit.edu/wojciech
Muriel Médard          https://www.rle.mit.edu/people/directory/muriel-medard/
Silvio Micali          https://people.csail.mit.edu/silvio/CV.pdf [38 pp.]
Robert Miller          https://people.csail.mit.edu/rcm/mit-cv.pdf [29 pp.]
Robert Morris          https://www.csail.mit.edu/person/robert-morris ; http://www.meraki.com/about/
Stefanie Mueller       https://stefaniemueller.org/stefanie-mueller-cv.pdf [11 pp.]
Anand Natarajan        https://web.mit.edu/anandn/www/ ; https://engineering.mit.edu/faculty/anand-natarajan/
Alan Oppenheim         https://www.rle.mit.edu/wp-content/uploads/2022/03/AVO_CV-2022-02Feb_FINAL.pdf [47 pp.]
Asu Ozdaglar           https://asu.mit.edu/sites/default/files/documents/CV-Ozdaglar.pdf
Jonathan Ragan-Kelley  https://people.csail.mit.edu/jrk/
Manish Raghavan        https://mraghavan.github.io/
Martin Rinard          https://people.csail.mit.edu/rinard/cv.pdf [16 pp.]
Ronitt Rubinfeld       https://people.csail.mit.edu/rivest/
Ronitt Rubinfeld       https://people.csail.mit.edu/ronitt/ [CV, 8 pp.]
Daniela Rus            https://computing.mit.edu/daniela-rus/ [Schwarzman College of Computing page]
Daniel Sanchez         https://people.csail.mit.edu/sanchez/cv.pdf [6 pp.]
Arvind Satyanarayan    https://arvindsatya.com/files/cv.pdf [7 pp.]
Nir Shavit             https://www.csail.mit.edu/person/nir-shavit
Julian Shun            https://people.csail.mit.edu/jshun/cv.pdf [14 pp.]
```

Appendix

- Oppenheim CV, pp. 1;5-6 "Chevron Oil", "Lockheed" etc. etc.
- Song Han website "Google Brain"

- Butler Lampson using his Microsoft contacts on the MIT EECS departmental page
- Stefanie Mueller CV, p. 8 (funding "*3.8 million*", selected press)
- Justin Solomon, pp.1;9 (awards)
- "Bio - Stonebraker mikeresumensf -v2" p. 1
- Template for rejecting corporate awards, for unimaginative academics :


```
Dear Madam/Sir at Google, Dear Madam/Sir at Microsoft, Dear Madam/Sir at Facebook...,

I reject your award because I believe it is not the role of corporations
to determine what constitutes good or bad research.
```

Curriculum Vitae of Alan V. Oppenheim

Title: Ford Professor of Engineering
        Professor of Electrical Engineering and Computer Science
        MIT Department of Electrical Engineering and Computer Science

Degrees

Massachusetts Institute of Technology	S.B.	1961
Massachusetts Institute of Technology	S.M.	1961
Massachusetts Institute of Technology	Sc.D.	1964
Tel Aviv University	Ph.D. (H)	1995

Professional Positions

1996 – present   Ford Professor of Engineering, MIT

1990 – 1996   Distinguished Professor.
                   Department of Electrical Engineering and Computer Science, MIT

1976 – 1978   Cecil H. Green Professor of Electrical Engineering

1976 – present   Professor
                   Department of Electrical Engineering and Computer Science, MIT

1978 – 1980   Associate Head
                   Data Systems Division, MIT Lincoln Laboratory

1969 – 1976   Associate Professor
                   Department of Electrical Engineering and Computer Science, MIT

1967 – 1969   Staff Scientist, MIT Lincoln Laboratory

1964 – 1969   Assistant Professor
                   Department of Electrical Engineering, MIT

Principal Fields of Interest

Signal and Information Processing, Algorithms and Analysis
Nonlinear dynamics and chaotic signals
Applications of signal processing

Honorary Societies

National Academy of Engineering, Eta Kappa Nu, Tau Beta Pi, Sigma Xi

1979 – 1980	Defense Advanced Research Projects Agency Independent Review Committee for Oceanographic Detection and Categorization System

Visiting Appointments

Dec 1992 – Jan 1993	Sackler Scholar Mortimer and Raymond Sackler Institute of Advanced Studies Tel Aviv, Israel
Apr – May 1984	Sackler Scholar Mortimer and Raymond Sackler Institute of Advanced Studies Tel Aviv, Israel
Sep 1983 – Mar 1984	Visiting Scholar University of California at San Diego San Diego, California
Jun 1980	Invited Lecturer Tsinghua University Beijing, People's Republic of China
Jun 1977 – present	Guest Investigator Woods Hole Oceanographic Institution Woods Hole, Massachusetts
Sep 1972 – Jun 1973	Visiting Scientist E.N.S.E.R.G., University of Grenoble, Grenoble, France
1973	Visiting Professor University of Erlangen Erlangen, West Germany

Industrial Consulting

2016 – present	Technical Advisory Board, Lumii Inc.
2015 – present	Technical Advisory Board, Digital Cognition Technologies, Inc.
2008 – 2013	Technical Advisory Board, Axis Semiconductor
2001 – 2010	Transchip, Inc.

2000 – 2004	Thinking Investments, Inc.
1999 – 2001	TechOnLine, Inc.
1997 – 2001	Trakus, Inc.
1996 – 1999	Technical Advisory Board, Libit Signal Processing, Ltd.
1996 – 1997	Goldman Sachs
1996 – 2014	Aptec Group
1990 – 1993	Center for Communications Research
1986 – 1999	Atlantic Aerospace Electronics Corporation
1984 – 1985	MA/COM Linkabit
1982 – 1984	Nippon Schlumberger
1980 – 1990	Texas Instruments
1979 – present	Lockheed Sanders, Inc.
1977 – 1982	Schlumberger-Doll Research Laboratories
1976 – 1977	Acoustic Research, Inc.
1975	Chevron Oil Research Company
1974 – 1977	Stein Associates
1971 – 1985	Computer Signal Processing, Inc.
1971	Naval Underwater Sound Laboratory
1971	Concord Control Company
1966 – present	M.I.T. Lincoln Laboratory
1964 – 1967	Arthur D. Little
1964 – 1965	Raytheon
1963 – 1964	E.G.& G.

Curriculum Vitae

Education

since 07/20	**Postdoctoral Associate**, *Massachusetts Institute of Technology*, Cambridge, MA. Computer Science and Artificial Intelligence Laboratory.	
07/19–01/20	**Research Intern**, *Google AI*, New York City, NY.	
09/17–04/20	**Doctor of Philosophy**, *Stanford University*, Stanford, CA. Electrical Engineering Department, Stanford Graduate Fellowship.	
09/15–06/17	**Master of Science**, *Stanford University*, Stanford, CA. Computer Science Department, Fulbright Fellowship, Distinction in Research.	
10/11–04/15	**Bachelor of Science**, *Technical University of Munich*, Germany. Electrical Engineering, degree awarded with high distinction (top 3% of class).	

MIT EECS
Electrical Engineering | Computer Science | Artificial Intelligence + Decision-making

⌂ / PEOPLE

Butler Lampson

PEOPLE

Faculty

Faculty AI+D

Faculty CS

Faculty EE

Adjunct Professor of CS and Engineering

blampson@microsoft.com
(425) 703-5925
Office: 32-G924

Website ⌕

RESEARCH AREAS

Computer Architecture

Systems and Networking

About

I am an assistant professor in EECS at MIT. I completed my Ph.D. at Stanford University advised by Prof. Bill Dally. I was a postdoctoral researcher at Google Brain before joining MIT.

My research focuses on energy-efficient deep learning computing, at the intersection between machine learning and computer

LevelUp - Career Pathways in STEM, MIT Society of Women Engineers, Keynote Speaker		2017
RSS – Women in Robotics Workshop, Invited Talk		2017
The Tech, MIT Newspaper, Immigrant Members of the MIT community, Interview		2017
ACM CHI Conference, Diversity Lunch Table Leader		2016

Funding

$75,000	MIT Research Support Committee	2021
$250,000	MIT Accenture Seedfunds	2021
$45,000	MIT Portugal Seedfund	2021
$75,000	Sloan Fellowship	2020
$200,000	Microsoft Research Faculty Fellowship	2020
$20,000	MIT Indonesia Seed Fund	2020
$125,000	NSF Medium Discovery and Exploration of Design Trade-Offs	2020
$60,000	MIT MechE Seedfund	2020
$200,000	MIT-Skoltech Seedfund	2020
$90,000	MIT Portugal Seedfund	2020
$350,000	NSF Small: Learning Maker Skills By Building Game Props	2020
$60,000	AFFOA (Advanced Functional Fabrics of America)	2020
$150,000	MIT.nano Sense	2019
$300,000	MIT Ford Initiative	2019
$75,000	MIT International Design Center	2019
$90,000	MIT Portugal Program Seed Fund	2019
$525,000	NSF CAREER: Adaptive Physical Interfaces	2019
$47,000	MIT International Design Center	2018
$200,000	MIT Learning Initiative	2018
$75,000	MIT Research Support Committee	2018
$75,000	MIT Skoltech Seedfund	2018
$125,000	MIT-Portugal Program Seed Fund	2018
$452,000	NSF CHS: Small: An Integrated Editing Environment for 3D Printing	2017
$75,000	MIT Skoltech Seedfund	2017
$100,000	NSF Eager: Cybermanufacturing (together with Emmanuel Sachs)	2017

= ca. $3.8 million

Reviewing: NSF Panel Reviewer 2019, 2021

Selected Press

MIT News. Creating 3-D-printed "motion sculptures" from 2-D videos.		2018
3DPrint. MIT CSAIL Creates 3D Printable Sculptures of the Body in Motion.		2018

Justin Solomon

jsolomon@mit.edu · 617-324-6738 (office) · 703-623-4762 (cell)

people.csail.mit.edu/jsolomon/

Work: 32 Vassar Street, room 32-D460
Cambridge, MA 02139

Home: 30 Garrison Avenue #1
Somerville, MA 02144

Education

2010-2015	**Ph.D. in Computer Science, Stanford University** (Advisor: Leonidas Guibas)	*Stanford, CA*

Geometric Computing Group, Department of Computer Science
- Dissertation: "Transportation Techniques for Geometric Data Processing"
- Distinction in Teaching (completed 2013)
- Hertz Foundation Graduate Fellowship, National Science Foundation (NSF) Graduate Research Fellowship, and National Defense Science & Engineering Graduate (NDSEG) Fellowship

2010-2012   **Master of Science in Computer Science, Stanford University** (Advisor: Leonidas Guibas)   *Stanford, CA*
Qualifying exam in Computer Science Theory (topic: "PDE Approaches to Graph Analysis")

2006-2010   **Bachelor of Science, Stanford University** (Advisors: Leonidas Guibas and Richard Schoen)   *Stanford, CA*
Double major in Computer Science (honors) and Math (honors); GPA: 4.138

2002-2006   **Thomas Jefferson High School for Science and Technology (TJHSST)**   *Alexandria, VA*

Research Experience

2016-Present   **MIT, Department of Electrical Engineering & Computer Science**   *Cambridge, MA*
X-Consortium Career Development Assistant Professor (2016-2020), Associate Professor (2020-Present): Lead the Geometric Data Processing group in MIT's Computer Science and Artificial Intelligence Laboratory (CSAIL), studying processing, analysis, and editing of geometric data; teach and develop undergraduate and graduate courses.

2015-2016   **Princeton University, Program in Applied & Computational Mathematics**   *Princeton, NJ*
Postdoctoral fellow: Helped design optimization algorithms for cryo-electron microscopy (PI: A. Singer); research and collaboration in geometry processing, computer graphics, machine learning, and other disciplines; presented findings at academic conferences and symposia.

2010-2015   **Stanford University, Geometric Computing Group**   *Stanford, CA*
Graduate Research Assistant: Developed algorithms for geometry processing, machine learning, and graphics using techniques from continuous differential geometry, partial differential equations, and optimization; collaborated with researchers at Stanford and other universities; presented findings at academic conferences and group meetings; led instruction and development of course materials.

2014   **University of Southern California, Department of Computer Science**   *Los Angeles, CA*
Visiting Research Fellow: Studied numerics for Markov chain Monte Carlo (MCMC) sampling and performance capture with machine learning and graphics groups; led seminars and discussions on optimal transportation and geometric PDE; guest lecturer in introductory computer graphics course.

2007-2012   **Pixar Animation Studios, Tools Research Group**   *Emeryville, CA*
Summer Intern (2007, 2008, 2009), Part Time Research Assistant (2008-10, 2012): Designed efficient algorithms for image processing using local histograms; examined alternatives to the bilateral filter for computational photography, stylization, and painterly rendering; implemented filters on the GPU and in Pixar's compositing software; prepared SIGGRAPH submissions and other papers. *Summer Intern (2007):* Designed specialized linear solvers with fast rates of convergence for cloth simulation; demonstrated these algorithms using Pixar's physics simulation system.

2008-2010   **Stanford University, Geometric Computing Group**   *Stanford, CA*
Research Assistant: Formulated methods for replicating regular surface features and detecting intrinsic symmetries; developed algorithms for approximating Killing vector fields to represent continuous surface self-isometries using machinery from discrete and continuous Riemannian geometry.

2010   **British Library Sound Archive, Edison Fellowship Program**   *London, UK*
Visiting Researcher: Studied the history of Elgar's Cello Concerto using traditional and computerized techniques; developed software to visualize differences between various cellists' interpretations of the concerto.

2007-2008   **Stanford University, Fedkiw Group**   *Stanford, CA*
Research Assistant: Supported research in hair simulation by implementing hair rendering and reflectance models; contributed to testing frameworks for computational geometry methods.

2006   **Mitsubishi Electric Research Laboratory, Computer Vision Applications & Devices**   *Cambridge, MA*
Summer Intern: Designed multilinear models for representing face shape and reflectance simultaneously.

2005-2007   **MITRE Corporation**   *McLean, VA*
Technology Intern (part time on call): Developed a framework for iris recognition using multi-camera input; presented the system to engineers consulting for the US Department of Homeland Security.

2005   **Massachusetts Institute of Technology (MIT), Computer Graphics Group**   *Cambridge, MA*
Mentorship (Research Science Institute): Applied multilinear modeling to face shape estimation from reflectance/video.

- Organizer, NIPS 2014 Workshop on Optimal Transport & Machine Learning (with M. Cuturi and G. Peyré)

Reviewer

A complete list of recent journal/conference reviewing engagements can be provided on request.

Membership

- Sigma Xi, Scientific Research Honor Society (full member)
- Association for Computing Machinery
- ACM SIGGRAPH
- Computer Science Teachers Association
- Council on Undergraduate Research

Honors and Awards

2022	Google Research Scholar Award
2021	MIT EECS Outstanding Educator Award
2021	MIT Teaching with Digital Technology Award (student-nominated)
2020	Junior Bose Award for Excellence in Teaching, MIT School of Engineering
2018	NSF BIGDATA Award (with P. Rigollet)
2018	NeurIPS Top Reviewer Award
2018	Amazon Research Award
2018	MIT–IBM Watson AI Lab Exploratory Grant
2017-20	Prof. Amar G. Bose Research Fellowship
2017	ACM Future of Computing Academy
2017	Army Young Investigator Award (proposal: "Smooth Modeling of Flows on Graphs")
2017	Forbes 30 Under 30: Science
2015-2016	NSF Mathematical Sciences Postdoctoral Research Fellowship
2011 & 16	U.S. Junior Oberwolfach Fellow, National Science Foundation
2014	George E. Forsythe Memorial Award for Excellence in Student Teaching
2010-2015	Hertz Foundation Fellowship (inaugural Hertz-Google Fellow) & NSF Graduate Research Fellowship
2011-14	Bio-X Travel Subsidy Awardee, Stanford Bio-X Interdisciplinary Program
2010-14	Stanford Applied Music Scholarship
2010-13	National Defense Science and Engineering Graduate (NDSEG) Fellowship
2010	Second Place, Symposium on Geometry Processing (SGP) Best Paper Awards
2010	Edison Visiting Fellowship, British Library
2010	Frederick E. Terman Award for Scholastic Achievement in Engineering, Stanford University
2010	J.E. Wallace Sterling Award for Scholastic Achievement, Stanford University
2010	Outstanding Summerfield Scholar & Undergraduate of the Year, Phi Kappa Psi Foundation
2010	Firestone Medal for Excellence in Undergraduate Research
2009	Pixar Animation Studios Inventor Recognition Award
2009	Hoefer Prize for Excellence in Undergraduate Writing, Stanford University
2008	Barry M. Goldwater Scholarship & Tau Beta Pi Engineering Honor Society
2007	Boothe Prize for Excellence in Writing, Stanford University
2007	Finalist, Stanford CS 248 Video Game Design Competition (Project: "Paper Airplane 3D")
2007	Student Research Competition Finalist and poster presenter, SIGGRAPH 2007
2007	President's Award for Academic Excellence in the Freshman Year, Stanford University
2007	Team Finalist, ACM Intercollegiate Programming Contest (ICPC), Tokyo, Japan
2006	Finalist, Intel Science Talent Search (Project: Three-Dimensional Face Recognition from Video)
2004-2006	Scholarships: National Merit, Naval Research, Micron Science & Tech., Intel Excellence in CS
2006	Awards: Mu Alpha Theta Award; USA Today All-USA High School First Academic Team (5/18/06)
2006	Third Place (National) and First Place (State), Math/CS, Junior Science and Humanities Symposium
2005 & 06	First (05) and Second (06) Grand Prize, Computer Science, International Science and Engineering Fair
2005	Research Science Institute, Massachusetts Institute of Technology (Top Project Presentation Award)
2005	Fellowships: Davidson Institute for Talent Development, Department of Homeland Security
2004	Outstanding Intern Award, Naval Science & Engineering Apprenticeship Program (SEAP)

Other Activities

2020-Present	Mentor, Científico Latino
2018-Present	Cellist, No-Name Orchestra of Boston (2019 soloist: Elgar cello concerto)
2017-Present	Cellist, New Philharmonia Orchestra
2016-Present	Faculty mentor, Research Science Institute (RSI)
2020-2021	Mentor (high school mathematics), Boston Partners in Education
2016-2021	Metric Geometry and Gerrymandering Group (MGGG)
2018-2019	Faculty host, MIT Vest Scholarships
2015-2016	Cellist, Bravura Philharmonic Orchestra & Westminster Community Orchestra

Biographical Sketch: Michael Stonebraker

MIT Computer Science and Artificial Intelligence Laboratory
32 Vassar St., room 32-G922
Cambridge, MA. 02139
Tel (603) 714-4451
Email: stonebraker@csail.mit.edu

Areas of Special Interest
Database systems, data warehouses, federated database systems, database systems for new application areas, operating systems

Professsional Preparation:
B.S.E.E. - Princeton University 1961
PhD Computer Information and Control Engineering - Univ. of Michigan 1971

Appointments
University of California, Berkeley – Asst. Professor 1971-1976,
                                              Assoc. Professor 1976-1982,
                                              Professor 1982-1994,
                                              Professor of the Graduate School 1994-1999.
Massachusetts Institute of Technology – Senior lecturer 2001-2002
                                              Adjunct Professor 2002-
Ingres Corporation – Founder and Chief Technology Officer - 1980-1992
Illustra Corporation – Founder and Chief Technology Officer - 1992-1996
Informix Corporation – Chief Technology Officer - 1996-2000
Cohera Corporation – Founder and Chief Technology Officer - 1997-2001
Required Technology, Inc. Chief Technology Officer 2001- 2002
Streambase, Inc. – Founder and Chief Technology Officer – 2003-
Vertica Systems, Inc. – Founder and Chief Technology Officer – 2005 –

Awards and Honors:
ACM Software System Award 1988
ACM SIGMOD Innovation Award 1992
National Academy of Engineering 1998
Computer Reseller News – Hall of Fame Member, 1999
IEEE John von Neumann Medal 2005

Relevant Publications (5)
Michael Stonebraker et. al., "Whither DBMS Architecture," Proc 2007 CIDR Conference, Asilomar, Ca., Jan 2007
Michael Stonebraker, et. al., "C-Store: A Column-oriented DBMS," Proc. 2005 VLDB Conference, Trondheim, Norway, Sept 2005.
Michael Stonebraker, Ugur Cetintemel, "One Size Fits All: An Idea Whose Time Has Come and Gone," Proc. 2005 ICDE Conference, Tokyo, Japan, April 2005.
Hari Balakrishnan, Magda Balazinska, Don Carvey, Ugur Cetintemel, Mitch Cherniack, Christian Convey. Eddie Galvez, Jon Salz, Michael Stonebraker, Richard Tibbetts, Stan Zdonik, "Retrospective on Aurora," VLDB Journal 13(4), p370-383 (2004)
Daniel Abadi, Don Carvey, Ugur Cetintemel, Mitch Cherniack, Christian Convey.Sangdon, Michael Stonebraker, Nesime Tatbul, Stan Zdonik, "Aurora: A New Model and Architecture