



Artificial Intelligence



Al: What Lies Ahead

CS professors and students are featured in the Columbia Engineering Magazine for their work in shaping the next wave of artificial intelligence.

(https://www.cs.columbia.edu/2021/ai-what-lies-ahead/)



Elias Bareinboim and Shuran Song Win J.P. Morgan Faculty Research Awards 2021

The J.P. Morgan AI Research Awards 2021 partners with research thinkers across artificial intelligence.

(https://www.cs.columbia.edu/2021/elias-bareinboim-and-shuran-song-win-j-p-morgan-faculty-research-awards-2021/?redirect=acaab9ebcc4b02872443a7857b35cf3c)



(https://www.cs.columbia.edu/2019/cs-professors-part-of-the-inaugural-j-p-morgan-faculty-research-awards/)

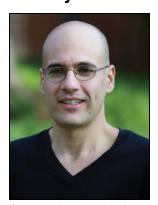
CS Professors Part of the Inaugural J.P. Morgan Faculty **Research Awards**

About

Artificial Intelligence (AI) is concerned with the development of systems that exhibit behavior typically associated with human cognition, such as perceiving, learning, communicating, reasoning, making decisions, and acting in a physical and social environment. Al research at Columbia CS focuses on machine learning, natural language and speech processing, computer vision, robotics, and security.

Al researchers collaborate widely within the university and beyond, contributing to applications in medicine, public safety, law, journalism, and other areas. Some AI faculty are cross-listed with the Statistics department, Electrical Engineering department, and the Data Science Institute.

Faculty and Affiliates



(https://causalai.net/) **Elias Bareinboim** (https://causalai.



Daniel Bauer (http://www.cs.co



Peter Belhumeur (http://www.peter



David Blei (http://www.cs.co

net/)

lumbia.edu/~bau er)

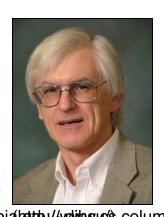
nbelhumeur.com)

lumbia.edu/~blei)









Shih-Fu Chang (http://www.ee.co lumbia.edu/~sfch ang)

Julia Hirschberg (http://www.cs.co lumbia.edu/~julia /)

Daniel Hsu (http://www.cs.co lumbia.edu/~djhs u/)

John Kender (http://www.cs.co lumbia.edu/~jrk/)









Kathleen McKeown

(http://www.cs.co

Shree Nayar (http://www.cs.co lumbia.edu/~nay ar/)

Ansaf Salleb-Aouissi (http://www.cs.co

Brian Smith (http://www.cs.co lumbia.edu/~bria n/)

lumbia.edu/~kath y/) lumbia.edu/~ans af/)

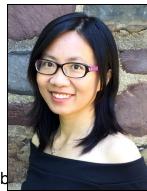




(http://www.cs.columbia/hettpu//www.mas/)columbia.edu/~vondrick/)

Nakul Verma (http://www.cs.co lumbia.edu/~ver ma/) Carl Vondrick (http://www.cs.co lumbia.edu/~von drick/)





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Smaranda (h

(https://www.cs.columbia.edu/~shurans/index.html)

Muresan (http://www1.cs.c olumbia.edu/~sm ara) Shuran Song (https://www.cs.c olumbia.edu/~sh urans/index.html) Find the COVID-19 Resource Guide here (https://news.columbia.edu/news/update-covid-19-university-guidance).

Computer Science at Columbia University

The computer science department advances the role of computing in our lives through research and prepares the next generation of computer scientists with its academic programs.

Find out more about the department here (/about).

Upcoming Events

SEP

Theory Student Seminar

26

Tuesday 12:30 pm

CSB 480

SEP

29

Semirandom CSP refutation via Kikuchi matrices: Algorithms, Certificates, and Connections

Theory Lunch

Friday 12:30 pm

CS conference room (CSB453)

Peter Manohar, Carnegie Mellon University

OCT

Theory Student Seminar

03

Tuesday 12:40 pm

CSB 480

ост **06** Theory Lunch - Sunoo Park

Theory Lunch

Friday 12:30 pm

CS conference room (CSB453)

Sunoo Park, New York University

View All >> (https://www.cs.columbia.edu/calendar/)

In the News

MIT Technology Review

The Computer Scientist Who Hunts for Costly Bugs in Crypto Code (https://www.cs.columbia.edu/2023/the-computer-scientist-who-hunts-for-costly-bugs-in-crypto-code/?redirect=0c99d322ac4a621f0cb1bf31ffea64ba) (Ronghui Gu)

(https://www.cs.columbia.edu/2023/the-computer-scientist-who-hunts-for-costly-bugs-in-crypto-code/? redirect=0c99d322ac4a621f0cb1bf31ffea64ba)



This Self-Aware Robot Taught Itself How to Control Its Own Body (https://www.cs.columbia.edu/2022/this-self-aware-robot-taught-itself-how-to-control-its-own-body/?redirect=2275dd724f7cd014090b808bf9f6c3c9)

(Carl Vondrick)

(https://www.cs.columbia.edu/2022/this-self-aware-robot-taught-itself-how-to-control-its-own-body/? redirect=2275dd724f7cd014090b808bf9f6c3c9)



Columbia Awarded \$185 Million in Patent-Infringement Lawsuit (https://www.cs.columbia.edu/2022/columbia-awarded-185-million-in-patent-infringement-lawsuit/? redirect=00ff51e39830d7b7a1521ed64b5174b7)

(Salvatore Stolfo)

(https://www.cs.columbia.edu/2022/columbia-awarded-185-million-in-patent-

infringement-lawsuit/? redirect=00ff51e39830d7b7a1521ed64b5174b7)



Mathematicians Transcend Geometric Theory of Motion (https://www.cs.columbia.edu/2021/mathematicians-transcend-geometric-theory-of-motion/? redirect=5673fa940ca6c0bede69f18e4810731e)

(Andrew Blumberg)

(https://www.cs.columbia.edu/2021/mathematicians-transcend-geometric-theory-of-motion/? redirect=5673fa940ca6c0bede69f18e4810731e)

FINANCIAL TIMES

Auto-scans of phones would violate data privacy, say security experts (https://www.cs.columbia.edu/2021/auto-scans-of-phones-would-violate-data-privacy-say-security-experts/?redirect=2ed01b3c9d786fd4c2557ead92be01b1) (Steven Bellovin)

8/11

(https://www.cs.columbia.edu/2021/auto-scans-of-phones-would-violate-data-privacy-say-security-experts/? redirect=2ed01b3c9d786fd4c2557ead92be01b1)

Press Mentions

(Suman Jana)



How The Morning Show Rewrites the Notorious 2014 Sony Hack (https://www.cs.columbia.edu/2023/how-the-morning-show-rewrites-the-notorious-2014-sony-hack/? redirect=01cb778274fb38a72826afd84056ab79)

(https://www.cs.columbia.edu/2023/how-the-morning-show-rewrites-the-notorious-2014-sony-hack/? redirect=01cb778274fb38a72826afd84056ab79)

The Washington Post Your Résumé Isn't the Only Thing Popular Job Sites Evaluate (https://www.cs.columbia.edu/2023/your-resume-isnt-the-only-thing-popular-job-sites-evaluate/?redirect=f25fb139a595563c5d6b2ebf335c354a)

(https://www.cs.columbia.edu/2023/your-resume-isnt-the-only-thing-popular-job-sites-evaluate/? redirect=f25fb139a595563c5d6b2ebf335c354a)

SCIENTIFIC AMERICAN

Yes, AI Models Can Get Worse over Time (https://www.cs.columbia.edu/2023/yes-ai-models-can-get-worse-over-time/? redirect=bd00821a18c6554527db1cab787c273b)

(Kathleen McKeown, Vishal Misra)

(https://www.cs.columbia.edu/2023/yes-

ai-models-can-get-worse-over-

time/?

redirect=bd00821a18c6554527db1cab787c273b)



Here's how AI is being used to unlock secrets still hidden in the human brain (https://www.cs.columbia.edu/2023/hereshow-ai-is-being-used-to-unlock-secrets-still-hidden-in-thehuman-brain/?...

(Richard Zemel)

(https://www.cs.columbia.edu/2023/hereshow-ai-is-being-used-to-unlocksecrets-still-hidden-in-the-humanbrain/?

redirect=4055e95b510974e140a3552097549bb7)

Does Al in NYC need restrictions? Officials hold closed**lia Undefordingeting**ri**osdiscuss**EAS) (https://www.cs.columbia.edu/2023/does-ai-in-nvc-needrestrictions-officials-hold-closed-door-meeting-to-discuss... M.S./Ph.D. Application (https://apple/wingineering.columbia.edu/apply/)

(https://www.cs.columbia.edu/2023/does-MS Express Application for Current Undergrads ai-in-nyc-nead-restrictions of figures figures in the columbia and the columbia ai-in-nyc-nead-restrictions of the columbia ai-in-nyc-nead-restriction ai-

hold-closed-door-meeting-to-

undergraduates)

discuss/? CS@CU MS Bridge Program in Computer Science (https://www.cs.columbia.edu/ms-

redirect=557ac481d534504ff10bb8a2246504e8)

(https://www.columbia.edu)

Links

Map (https://www.cs.columbia.edu/wpcontent/uploads/2022/07/morningsidemap 2015aug-7.pdf)

School of Engineering And Applied Science (http://engineering.columbia.edu/)

Data Science Institute (http://datascience.columbia.edu/)

CRF (http://www.cs.columbia.edu/crf)

MICE (https://mice.cs.columbia.edu)

ASCENT Program (https://www.cs.columbia.edu/ascent/)

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CS Advising (https://www.cs.columbia.edu/academic-advising/)

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Directions (https://www.cs.columbia.edu/resources/directions/)

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