

UC Berkeley, EECS 2121 Berkeley Way Berkeley, CA 94704 mkcohen@berkeley.edu

EDUCATION AND ACADEMIC APPOINTMENTS

Postdoc in Computer Science UC Berkeley, Berkeley, CA Supervisor: Stuart Russell	2023-
DPhil in Engineering Science University of Oxford, Oxford, UK Research Advisor: Mike Osborne	2019-2023
Advanced Master of Computing, <i>with University Medal</i> Australian National University, Canberra, Australia Research Advisor: Marcus Hutter	2017-2019
B.A. (Hons.) Chemistry, <i>magna cum laude</i> Yale University, New Haven, CT Research Advisor: Patrick Vaccaro	2011-2015

PUBLICATIONS

Journal articles

- Cohen, M. K., Kolt, N., Bengio, Y., Hadfield, G. K., & Russell, S. (2024) Regulating Advanced Artificial Agents. *Science*.
- Cohen, M. K., Hutter, M., Nanda, N. (2022) Fully General Online Imitation Learning. *JMLR*, 23(334).
- Cohen, M. K., Hutter, M., Osborne, M. A. (2022) Advanced Artificial Agents Intervene in the Provision of Reward. *AI Magazine*.
- Cohen, M. K., Vellambi B., & Hutter, M. (2021) Intelligence and Unambitiousness Using Algorithmic Information Theory. *IEEE Journal of Selected Areas in Information Theory*.
- Cohen, M. K., Catt, E., & Hutter, M. (2021) Curiosity Killed or Incapacitated the Cat and the Asymptotically Optimal Agent. *IEEE Journal of Selected Areas in Information Theory*.
- Nemchick, D. J., Cohen, M. K., & Vaccaro, P. H. (2016). Dual hydrogen-bonding motifs in complexes formed between tropolone and formic acid. *The Journal of Chemical Physics*, 145(20), 204-303.

Conference proceedings

- Cohen, M. K., Daulton, S. Osborne, M. (2022) Log-Linear-Time Gaussian Processes Using Binary Tree Kernels. In *Proc. NeurIPS-22*.
- Cohen, M. K. & Hutter, M. (2020). Pessimism About Unknown Unknowns Inspires Conservatism. In *Proc. COLT-20*.
- Cohen, M. K., Vellambi, B., & Hutter, M. (2020). Asymptotically Unambitious Artificial General Intelligence. In *Proc. AAAI-20*.
- Cohen, M. K., Catt, E., & Hutter, M. (2019). A Strongly Asymptotically Optimal Agent in General Environments. In *Proc. IJCAI-19*.

Workshop proceedings

- Cohen, M. (2017). Intra-feature Random Forest Clustering. In International Workshop on Machine Learning, Optimization, and Big Data. 41-49. Springer, Cham.
- Nemchick, D., Cohen, M., & Vaccaro, P. (2015). Dispersion-Dominated π-Stacked Complexes Constructed on a Dynamic Scaffold. In 70th International Symposium on Molecular Spectroscopy (Vol. 1).

Manuscripts in submission

- Cohen, M. K., Hudson, R. & Bengio, Y. (2025) Superalignment Anti-Literature Review. *Submitted to IJCAI*.
- Bengio, Y., Cohen, M. K., Malkin, N., MacDermott, M., Fornasiere, D., Greiner, P., & Kaddar, Y. (2024) Can a Bayesian Oracle Prevent Harm from an Agent? *Submitted to UAI*.
- Cohen, M. K., Hutter, M., Bengio, Y., & Russell, S. (2024) RL, But Don't Do Anything I Wouldn't Do. *Submitted to UAI*.
- Cohen, M. K. & Osborne, M. (2023) A Linear-Time, Infinite-Dimensional Extension of any Finite-Dimensional Kernel. *Submitted to JMLR*.
- Cohen, M. K. & Hutter, M. (2023) Imitation Learning is Probably Existentially Safe. *Submitted to AI Magazine*.

GRANTS, AWARDS, AND PRIZES

Open Philanthropy AI Worldviews Contest, Third Prize (\$25,000)	2023
Future of Humanity Institute – DPhil Scholarship (£19,000/year + tuition)	2019-2023
Australian National University's University Medal	2019
Open Philanthropy Project – AI Scholarship (\$83,530)	2017-2019

TEACHING

UC Berkeley	
Co-instructor. CS188 – Artificial Intelligence.	2024
~650 undergraduates	
University of Oxford	
Instructor. Autonomous Intelligent Machines and Systems, AI safety module.	2020-2022
Postgraduates	

2015-2016

Teach for America, Lazear Charter Academy, Oakland, CA Computer Science Teacher

Middle schoolers

INVITED TALKS

- ICON Lab, UC Berkeley. Superalignment with KL Regularization. December 2024.
- Mila. Superalignment with KL Regularization. November 2024.
- Center for Human-Compatible AI 2024 workshop. Regulating advanced artificial agents. June 2024.
- Oxford Martin School. Regulating advanced artificial agents. March 2024.
- Mila. Extinction risk from RL agents and possible ways to avoid it. February 2024.
- *House of Commons Science and Technology Select Committee.* Inquiry into the Governance of AI. January 2023.
- AI for Good. Expected Behavior of Advanced Artificial Agents. November 2022.
- Computational and Biological Learning Lab, University of Cambridge. Advanced Artificial Agents Intervene in the Provision of Reward. October 2022.
- AI Ethics Seminar, Chalmers Institute of Technology. Advanced Artificial Agents Intervene in the Provision of Reward. October 2022.
- Center for Human-Compatible AI, UC Berkeley. A Few Research Directions. September 2022.
- Decision Making Group, University of Tübingen. Joint Human-AI Decision Making. March 2022.
- AGI Governance Fellowship, Blavatnik School of Government. AI Existential Safety. February 2022.

Center for Human-Compatible AI Virtual Workshop, UC Berkeley. Advanced Artificial Agents Intervene in the Provision of Reward. June 2021.

- Google DeepMind (Safety Team). Fully General Online Imitation Learning. February 2021.
- Cambridge AI Safety Reading Group. Pessimism About Unknown Unknowns Inspires Conservatism. November 2020.
- Google DeepMind (Foundations team). Pessimism About Unknown Unknowns Inspires Conservatism. September 2020.
- AI Ethics London. AI Safety in Bayesian Reinforcement Learning. February 2020.
- Google DeepMind (Safety team). Pessimism About Unknown Unknowns Inspires Conservatism. February 2020.
- Effective Altruism Oxford. Expected Behavior of Advanced Reinforcement Learners. October 2019.

Google DeepMind (Safety team). Asymptotically Unambitious AGI. October 2019.

- Center for Human-Compatible AI, UC Berkeley. Curiosity Killed the Cat and the Asymptotically Optimal Agent. September 2019.
- Center for Human-Compatible AI, UC Berkeley. Asymptotically Unambitious AGI. January 2019.

PAST EMPLOYMENT

Mentor, Stanford Existential Risk Initiative, Remote	2021
Visiting Researcher, Center for Human-Compatible AI, UC Berkeley, Berkeley, CA	2017-2018
Data Science Associate, Noodle.ai, Palo Alto, CA	2017
Computer Science Teacher, Lazear Charter Academy, Oakland, CA	2015-2016

REVIEWING

OECD	2024
JMLR	2020, 2021
Yale Law Journal	2025
Synthese	2021, 2022
International Journal of Production Research	2022, 2023
Journal of Consciousness Studies	2021
AAAI 2021	2020
Journal of AGI	2020
AGI 2020	2020

SELECTED MEDIA

<u>AP News</u> <u>The Conversation (co-authored with Marcus Hutter)</u> <u>Southern Weekly</u> <u>Southern Weekend</u> <u>The Telegraph</u> <u>The Times</u> <u>The Independent</u> <u>CNN</u> <u>NTD</u> <u>The U.S. Sun</u> <u>Motherboard</u> <u>TRT World (television)</u> <u>TRT World (print)</u> <u>Dubai Eye (starting at 11:10)</u>