

Curriculum Vitae

Michael K. Cohen

Student, DPhil Engineering Science, Oxford University

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Education

Oxford University 2019-
DPhil in Engineering Science Oxford, UK
Research Advisor: Mike Osborne

Australian National University 2017-2019
Advanced Master of Computing Canberra, Australia
Research Advisor: Marcus Hutter
Cumulative GPA: 7.00/7.00

Yale University 2011-2015
B.A. (Hons.) Chemistry, *magna cum laude* New Haven, USA
Research Advisor: Patrick Vaccaro
Cumulative GPA: 3.90/4.00

Awards

Australian National University's University Medal. 2019

Grants

Future of Humanity Institute – DPhil Scholarship (£19,000/year + tuition) 2019-
Open Philanthropy Project – AI Scholarship (\$83,530) 2017-2019

Publications

- Cohen, M. K., Hutter, M., Osborne, M. A. (2022, forthcoming) 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*.
- 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*.
- Cohen, M. (2017). Intra-feature Random Forest Clustering. In *International Workshop on Machine Learning, Optimization, and Big Data* (pp. 41-49). Springer, Cham.
- 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), 204303.
- 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).

Under Review:

Cohen, M. K., Hutter, M., Nanda, N. Fully General Online Imitation Learning. (Accept with minor revisions at JMLR)
Cohen, M. K., Daulton, S. Osborne, M. Linear-Time Gaussian Processes Using Binary Tree Kernels.

Teaching

Guest Lecturer/TA. Autonomous Intelligent Machines and Systems. Postgraduates, 2020-2022
Oxford University.

Invited Talks

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.

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, Teach for America, Lazear Charter Academy, Oakland, CA 2015-2016

Academic Service

Reviewing:

JMLR 2020, 2021
Synthese 2021, 2022
International Journal of Production Research 2022
Journal of Consciousness Studies 2021
AAAI 2021 2020
Journal of AGI 2020
AGI 2020 2020