Author bios for “Tackling Climate Change with Machine Learning”

David Rolnick is an NSF Mathematical Sciences Postdoctoral Research Fellow at the University of Pennsylvania, where his research focuses on the mathematical foundations of deep learning. He received his PhD in Applied Math from MIT as an NSF Graduate Research Fellow, co-advised by Nir Shavit, Max Tegmark, and Ed Boyden, and also studied in Berlin as a Fulbright Scholar.

Priya Donti is a PhD student in Computer Science & Public Policy at Carnegie Mellon University, co-advised by Zico Kolter and Inês Azevedo. She works at the intersection of machine learning and electricity systems, with a focus on reducing greenhouse gas emissions from the electricity sector. She is a Department of Energy Computational Science Graduate Fellow, a former NSF Graduate Research Fellow, and a former Watson Fellow.

Lynn Kaack is a Postdoctoral Researcher in the Energy Politics Group at ETH Zürich. Her research applies methods from statistics and machine learning to inform climate mitigation policy across the energy sector. She obtained a PhD in Engineering and Public Policy and a Master's in Machine Learning from Carnegie Mellon University, and is an alumna of the German Academic Scholarship Foundation.

Kelly Kochanski is a PhD candidate and Department of Energy Computational Science Fellow in the Department of Geological Sciences at the University of Colorado Boulder, where she applies advanced computational methods to Earth science problems. Her research focuses on improving the representation of snow and sea ice in global climate models.

Alexandre Lacoste is a research scientist at Element AI. His research interests revolve around multi-task transfer learning, probabilistic machine learning and causal inference. Prior to Element AI, he worked at Google for 3 years on large scale question answering systems using machine learning. He obtained his PhD in theoretical machine learning, where he developed bridges between PAC-Bayes and Bayesian approaches.

Kris Sankaran is a Postdoctoral Researcher at the Université de Montréal and Mila - Quebec AI Institute, focusing on problems in humanitarian AI under the supervision of Yoshua Bengio. He received his PhD in Statistics from Stanford University, advised by Susan Holmes. He is active in efforts to use data in public good applications.

Andrew Slavin Ross is a PhD student in Computer Science at Harvard University, advised by Finale Doshi-Velez. His research focuses on optimizing machine learning models to be interpretable and consistent with expert knowledge. He is also highly involved in academic and social efforts to mitigate climate change.

Nikola Milojevic-Dupont is a PhD student at the Mercator Research Institute on Global Commons and Climate Change in Berlin, and at the Technische Universität Berlin, advised by Felix Creutzig. His research stands at the interface between climate change mitigation, urban planning, and machine learning.

Natasha Jaques recently finished her PhD at MIT and is now a Research Scientist at Google Brain and Berkeley working with Sergey Levine and Doug Eck, where her work focuses on improving the social and affective intelligence of deep learning. She has received an honorable mention for best paper at ICML 2019 and a best paper award at the NeurIPS ML for Healthcare workshop, and was part of the team that received Best Demo at NeurIPS 2016. She has interned at DeepMind and Google Brain, and was an OpenAI Scholars mentor.

Anna Waldman-Brown is a PhD student in Urban Studies and Planning at the Massachusetts Institute of Technology, where she researches emerging technologies, manufacturing, and sustainability with the MIT Work of the Future Task Force. She has a Master's in Technology Policy from MIT, and was a Fulbright fellow at the Kwame Nkrumah University of Science and Technology.

Alexandra (Sasha) Luccioni is a Postdoctoral Researcher working on AI for Humanity initiatives at Mila - Quebec AI Institute, under the supervision of Yoshua Bengio. She obtained her PhD in Cognitive Computing from UQÀM in 2018 and spent two years working in applied ML, specifically in applying deep learning and NLP to different industrial applications. She is highly involved in community initiatives, serving on the Research and Policy Committee of Women in Machine Learning (WiML) and on the Advisory board of Kids Code Jeunesse.

Tegan Maharaj is a PhD candidate at Mila - Quebec AI Institute, working with Christopher Pal at Ecole Polytechnique de Montreal. Her recent research aims to bring together the fields of deep learning and theoretical ecology. She has been a MITACS, NSERC, and IVADO scholar and an intern at Google Brain and Facebook AI Research, and is active in many community organizations concerned with socially responsible and beneficial development of AI.

Evan Sherwin is a Postdoctoral Research Fellow at Stanford University's Department of Energy Resources Engineering. His focus areas include methane leakage detection from existing infrastructure and optimization-based techno-economic analysis of emerging low-carbon technologies. Dr. Sherwin holds a PhD in Engineering and Public Policy and a Master's in Machine Learning from Carnegie Mellon University, where he was an NSF Graduate Research Fellow.

Karthik Mukkavilli is a postdoctoral researcher at Mila - Quebec AI Institute, under the supervision of Yoshua Bengio, where his work focuses on extreme climate prediction and integrating economics/policy considerations with physics, statistics, machine learning and reinforcement learning approaches. He received his PhD as a joint Commonwealth scholar with CSIRO at the University of New South Wales, and was also a Research Fellow with Project Drawdown.

Konrad Körding is a PIK University Professor in the Departments of Neuroscience and Bioengineering at the University of Pennsylvania. Dr. Kording's interdisciplinary research uses data science and machine learning to advance a broad range of topics that include understanding brain function, modeling the coordination of body movements, and improving personalized medicine. He is particularly interested in incorporating insights into machine learning from computational neuroscience, econometrics, and causal inference.

Carla Gomes is a Professor of Computer Science and director of the Institute for Computational Sustainability at Cornell University. Her research area is artificial intelligence with a focus on large-scale reasoning, optimization, and learning. Dr. Gomes is also a founder of the field of Computational Sustainability, which aims to develop computational methods to help solve key challenges concerning environmental, economic, and societal issues and to help build a sustainable future. Dr. Gomes is a Fellow of the Association for the Advancement of Artificial Intelligence (AAAI), a Fellow of the Association for Computing Machinery (ACM), and a Fellow of the American Association for the Advancement of Science (AAAS).

Andrew Ng is a professor at Stanford University and a leading researcher in deep learning, computer vision, and natural language processing. Dr. Ng co-founded both Coursera (where his courses on machine learning are the two most popular courses on any subject) and Google Brain. He previously served as Vice President and Chief Scientist at Baidu. Among his recent projects are Landing AI and AI Fund.

Demis Hassabis is the co-founder and CEO of DeepMind, a neuroscience-inspired AI company that develops general-purpose learning algorithms and uses them to help tackle some of the world's most pressing challenges. After leading successful technology startups for a decade, and prior to founding DeepMind, Hassabis completed a PhD in cognitive neuroscience at University College London, followed by postdocs at MIT and Harvard. He is a five-time World Games Champion, recipient of the Royal Society's Mullard Award, and a fellow of the Royal Society of Arts and the Royal Academy of Engineering.

John Platt leads the Applied Science branch of Google Research, which works at the intersection between computer science and physical or biological science. Dr. Platt is known for his work in machine learning, in particular the SMO algorithm for support vector machines and calibrating the output of models. He has worked in many different fields, discovered two asteroids, and won a Technical Academy Award in 2006 for his work in computer graphics.

Felix Creutzig is the head of the working group Land Use, Infrastructures and Transport at the Mercator Research Institute on Global Commons and Climate Change, and Chair of Sustainability Economics at Technische Universität Berlin. He is a coordinating lead author of the IPCC's Sixth Assessment Report and lead analyst of the Global Energy Assessment. He was awarded the Piers Sellers Prize for his interdisciplinary research on climate change. He holds a PhD in Computational Neuroscience.

Jennifer Chayes is Technical Fellow and Managing Director of Microsoft Research New England, New York City, and Montreal. Dr. Chayes is a Fellow of the American Association for the Advancement of Science, the Fields Institute, the Association for Computing Machinery, and the American Mathematical Society, as well as a National Associate of the National Academies and an Elected Member of the American Academy of Arts and Sciences. Among her many other awards, she is the winner of the 2015 John von Neumann Lecture Award, the highest honor of the Society for Industrial and Applied Mathematics.

Yoshua Bengio is a Professor in the Computer Science and Operations Research departments at Université de Montréal, scientific director of Mila - Quebec AI Institute and of IVADO, Canada Research Chair in Statistical Learning Algorithms, and a Canada AI CIFAR Chair. Bengio is a recipient of the 2019 Turing Award for pioneering deep learning, officer of the Order of Canada, member of the Royal Society of Canada, a member of the NeurIPS board, and co-founder and general chair for the ICLR conference. His goal is to contribute to uncovering the principles giving rise to intelligence through learning, as well as to favor the development of AI for the benefit of all.