Michael McCourt

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Professional History

Distributional - 2023–2025 - CTO & Co-founder
Led strategic organization and technical execution in pursuit of testing GenAI systems for stability and surfacing key insights from production usage. Managed research & development and customer success, and contributed to GTM.

Intel - 2020–2023 - Senior Principal Engineer/AI Research Manager
Managed the SigOpt project (sample-efficient optimization, based in USA) and the XPU Monitoring project (enabling Intel's GPU offerings based in Shanghai). Executed new research initiatives in the application of optimal design to materials science. Oversaw the open source release of SigOpt.

SigOpt - 2015–2020 - Research Engineer & Head of Research
Primary research contributor to the SigOpt company, going from 3 to 24 employees. Developed novel strategies for multiobjective Bayesian optimization and implemented those in our SaaS solution for use by ML practitioners, finance firms, and industrial engineers.

University of Colorado - 2013–2015 - Visiting Assistant Professor
Taught classes in mathematics, statistics, and computer science. Conducted research on computational statistics. Co-authored a text on kernel-based approximation methods.

Argonne National Laboratory - 2010–2013 - Lab Grad Associate
Conducted research as part of my PhD thesis on computational tooling for multiphysics systems. Included research in numerical solvers and meshfree approximation for magnetohydrodynamics.

Education

Ph. D. in Applied Mathematics	Cornell University	2013
M. S. in Applied Mathematics	Cornell University	2009
B. S. in Applied Mathematics	Illinois Institute of Technology	2007

Selected Publications

Team composition revisited: Expanding the team member attribute alignment approach to consider patterns of more than two attributes; KJ Emich et al, Organizational Research Methods 27 (2), 329-348, 2024.

Beyond the pareto efficient frontier: Constraint active search for multiobjective experimental design; G Malkomes et al, International Conference on Machine Learning, 7423-7434; 2021.

Bayesian optimization is superior to random search for machine learning hyperparameter tuning: Analysis of the black-box optimization challenge 2020; R Turner et al; Proceedings of the NeurIPS 2020 Competition and Demonstration Track 133, 3-26; 2020.

Creating glasswing butterfly-inspired durable antifogging superomniphobic supertransmissive, superclear nanostructured glass through Bayesian learning and optimization, S. Haghanifar et al;, Materials Horizons, 6(8):1632-1642; 2019.

Kernel-based Approximation Methods Using Matlab, G. Fasshauer, M. McCourt, World Scientific Press, ISBN: 978-981-4630-14-6; 2015.