Amanda Coston
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Education

Carnegie Mellon University, Ph.D. student, Machine Learning and Public Policy
Research: counterfactual risk assessments and fairness; doubly-robust estimation; off-policy evaluation; transfer learning; methods to overcome real-word data limitations for AI systems; opioid overdose prediction for Allegheny County
Advisors: Alexandra Chouldechova and Edward H. Kennedy
Coursework: causal inference, statistical machine learning, convex optimization, microeconomics, public policy seminar

Carnegie Mellon University, Masters of Science in Machine Learning, 2019

Princeton University, Bachelor of Science in Engineering, 2013
Magna cum laude in computer science
Certificate in the Woodrow Wilson School of Public and International Affairs
Senior Thesis: Machine Learning Techniques for the Diagnosis of Pediatric Tuberculosis.
Advisor: Robert Schapire

Research papers and presentations

Counterfactual Risk Assessments, Evaluation, and Fairness. Joint work with Alexandra Chouldechova and Edward H. Kennedy. (Forthcoming 2019).

Fair Transfer Learning with Missing Protected Attributes. Joint work with Kush Varshney et al. at IBM Research. Conference on Artificial Intelligence, Ethics, and Society (AIES) 2019

Offline Heterogeneous Policy Evaluation: A Causal Approach. Joint work with Leqi Liu. Presented at Causal ML 2018

Awards and Fellowships:

Suresh Konda Best First Paper Award — Spring 2019
Awarded for *Counterfactual Risk Assessments and Evaluation for Child Welfare Screening*

NSF Graduate Research Fellow — Spring 2019

Phi Beta Kappa — Spring 2013

Tau Beta Pi — Fall 2011

Leadership and Mentorship

Machine Learning for Development (ML4D) Workshop Co-organizer for NeurIPS 2018 and 2019
Workshop for methods and applications of machine learning for problems in the developing world

Project Leader at AI4ALL — Summer 2019
Organized and led a project on fairness in algorithmic risk assessments for high schoolers

Program Committee Member
FAT* 2020, AAAI-2020 Emerging Track on AI for Social Impact, IJCAI 2019 workshop on AI for Social Good

Fairness, Ethics, Accountability, and Transparency Reading Group at Carnegie Mellon — Fall 2019—current
Co-organizer

Mentor, AI Mentoring Program, Carnegie Mellon University — Fall 2018—current

Work

IBM Research AI, Science for Social Good Fellow — Summer 2018
Developed methods for fair risk assessments in domain adaptation when access to the protected attribute is limited (to either source or target)

Hivisasa.com, Technical Consultant (Kenya) — Spring 2017

Built data analytics pipeline for the CEO and CTO to track most popular authors and content for the news site Hivisasa.com in Kenya

Teneo, Data Scientist Fall 2015—Jan 2017
Built predictive models and analytics dashboards to drive client insights in strategic communications and shareholder activism.

Microsoft Program Manager in Bing Local Fall 2013—Fall 2015
Shipped local search features for global markets that boosted revenue by $5M annually, including the local recommendation engine.

Civic Engagement

Court Appointed Special Advocate, Family Law CASA Winter 2014—Fall 2015
Investigated the child's interest in family law cases and made recommendations to the court on the child's behalf

Committee on Discipline, Princeton University Fall 2012—Spring 2013
Adjudicated cases of alleged academic and behavioral violations

Engineers Without Borders Fall 2010—Fall 2012

Skills: R; Python including NumPy and Pandas; proficient in French