Matt Beveridge



(301) 788-3953 | mattbev@mit.edu | mattbeveridge.com

Education

Massachusetts Institute of Technology

M.Eng. in Computer Science – Artificial Intelligence B.S. in Computer Science and Electrical Engineering B.S. in Mathematics

Minor in Theater Arts

September 2016 – June 2021 | Cambridge, MA

- Thesis: Consistent Depth Estimation in Data-Driven Simulation for Autonomous Driving.
- Thesis Advisor: Prof. Daniela Rus

Research

MIT CSAIL – Data-Driven Inference Group

September 2019 - May 2020 | Cambridge, MA

• Created novel neural network frameworks to learn the optimal pooling layer metric for a given problem.

MIT Media Lab – Camera Culture Group

September 2018 - February 2019 | Cambridge, MA

 Improved autonomous vehicle imaging in fog using visible light and time of flight ray tracing.

MIT CSAIL – Interactive Robotics Group

February - May 2017 | Cambridge, MA

 Advanced human-like decision making in AI through human studies with adversarial games.

Selected Courses

* Audited † Current

AI/ML: Machine Learning; Artificial Intelligence; Deep Learning*; Computer Vision; NLP[†]

Math: Numerical Analysis; Algorithms; Optimization; Information Theory; Probability; Stochastic Processes; Statistics & Data Analysis; Graph & Combinatorial Theory*; Linear Algebra; Differential Equations, Calculus

Robotics/Programming: Computational

Sensorimotor Learning[†]; Intelligent Robot Manipulation; Software Construction; Fundamentals of Programming

Projects (full list at <u>mattbeveridge.com/portfolio</u>)

Robot Juggler: Robotic arm that stably juggles a ball.
Federated Learning: Attacks and defenses for FL.
Blacktip Python Library: Financial analysis toolkit.
Karaoke: Plays songs parsed from text files via browser.

Experience

MIT Driverless Simulation Team Lead

August 2020 - Present | Cambridge, MA

• Innovating data-driven (photorealistic) and end-to-end simulation for high-speed autonomous vehicles.

Draper Lab Machine Learning Researcher

June - August 2020 | Cambridge, MA

 Formulated general uncertainty quantification metrics with application to competency-aware reinforcement learning.

NASA Research Software Engineer

June – August 2019 | Houston, TX

 Prototyped, tested, and analyzed system reliability measures for the ISS, Orion spacecraft, and Gateway space station.

General Atomics ASI *Machine Learning Engineer* June – August 2018 | San Diego, CA

 Developed deep learning-based visual quality assurance, culminating with Alpha deployment to the shop floor.

nference Data Scientist

February - June 2018 | Cambridge, MA

 Analyzed sentiment of social media and parsed disease indicators, mapping relational trees by semantic association.

Mosaic Power Software Engineer

June - August 2017 | Frederick, MD

• Led an energy optimization project utilizing learned resident patterns and intraday fluctuations in power grid demand.

Leadership & Activities

MIT Applied Machine Learning Teaching Assistant

August 2020 - Present | Cambridge, MA

• Mentoring students on semester-long projects in ML.

MIT EnergyHack Director of Corporate Relations June 2019 – May 2020 | Cambridge, MA

• Coordinated hackathon sponsorships and challenges.

Delta Kappa Epsilon Fraternity *Treasurer*

February 2018 - September 2020 | Cambridge, MA

• Managed assets for 50 members and 1 employee.

MIT Football Team Member

August 2016 - December 2017 | Cambridge, MA

Academic All-Conference.

Skills