

Evan Ward Dietrich

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EDUCATION

Tufts University, Medford MA

B.S. Computer Science, B.S. Cognitive and Brain Sciences, Minor in Economics, expected May 2021

- Major GPA: 3.78; Recipient of the Edgar N. and Faith A. Johnson Scholarship, Dean's List

Relevant Coursework

- Algorithms, Data Structures, Machine Learning, Machine Structure & Assembly Language, Statistics, Linear Algebra, Discrete Math, Computer System Security, Programming Languages, Calculus, Logic

EXPERIENCE

MIT Lincoln Laboratory, Lexington MA

Undergrad Technical Researcher, August 2019 — Present

- Developing deep learning algorithms that identify unique hand shapes, movements, and facial expression from video to translate American Sign Language phrases into structured English sentences.
- Led team of 6 interns to win first place and funding for a real-time system through I3C Competition.

Software Engineering Intern, May 2019 — August 2019

- Designed and developed automated software system in C++ to set hardware configurations and run calibration tests on lasercom terminals, replacing 3-week manual testing with overnight calibration.
- Implemented MATLAB signal processing algorithms to make real-time corrections on transmissions.
- Programmed API functions, request-handler, and user interface components of client-server system.

Tufts University Department of Computer Science, Medford MA

Senior Teaching Assistant, January 2018 — August 2019

- Held office hours to support 275 students in Discrete Math and Intro Computer Science courses.
- Instructed weekly 2-hr labs on data structure implementations and fundamental concepts.

Tufts University Human-Robot Interaction Laboratory, Medford MA

Research Assistant, January 2018 — April 2018

- Devised new Python methods for a neural network modeling language-switching costs for bilinguals.
- Built a GUI to run the model, expediting evaluation time and simplifying user-computer interaction.

PROJECTS

Code for Good Hackathon, Columbus OH

Project Leader and Hacker, October 2019

- Led team of 5 in building a Flask application to fit needs of a nonprofit client, placed second overall.
- Produced linear regression models via historical client data to determine which users may fail to complete their debt management program, so as to target engagement and reduce dropout likelihood.

Brain-Computer Interface Heatmap, Medford MA

Project Leader and Software Engineer, February 2019 — September 2019

- Directed a dozen students in producing software detecting mental states from electrical brain activity.
- Wrote artifact-correction algorithms to reduce heartbeat and muscle interference from EEG sensors.

SKILLS

Languages Python, C++, Java, C, MATLAB, R, SQL

Technologies Agile, Git, Confluence, Linux, SPSS Statistics, UML, Jupyter, TensorFlow, Valgrind