Evan Dietrich

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EDUCATION

Tufts University — Medford, MA
B.S. in Computer Science, B.S. in Cognitive Brain Science; GPA: 3.76 — *May 2021*

Honors: Edgar N. and Faith A. Johnson Scholarship, Dean's List
Select Coursework: AI, Algorithms, Data Structures, Machine Learning, NLP, Machine Structure & Assembly Language, Statistics, Linear Algebra, Discrete Math, Computer System Security, Programming Languages, Logic, Linguistics, Reinforcement Learning, Computation Theory, Rational Choice

EXPERIENCE

JPMorgan Chase & Co. — New York, NY
Software Engineering Intern — *Jun 2021 – Present*

- Developing a markets application on the Athena platform, streamlining options execution and supporting ad-hoc requests for commodities and energy trader teams within the corporate and investment bank. (*Python, TypeScript*)

Software Engineering Intern — *Jun 2020 – Aug 2020*

- Designed, created, and launched a mobile-first web app for real-time messaging and virtual appointment setup, supplying a nonprofit partner with a secure connection to 4500+ small-business clients. (*Bootstrap, Django, SQL*)
- Built quantitative clustering model to detect at-risk clients and generate personalized client feeds based on financial data and site activity, increasing client engagement metrics to 83% from 20% benchmark. (*Python, SQL*)

Massachusetts Institute of Technology (MIT) — Cambridge, MA
Student Technical Researcher — *Aug 2019 – May 2021*

- Engineered machine learning pipeline to extract hand and facial features from American Sign Language video data in support of translation to English phrases, reducing aggregated signer variance from 34% to 8%. (*Poster*)
- Trained and deployed scalable deep learning models using CNN architecture and seq2seq techniques, achieving 94% translation accuracy on a robust NLP lexicon of emergency phrases. (*Keras, Python, TensorFlow*)

MIT Lincoln Laboratory — Lexington, MA
Software Engineering Intern — *May 2019 – Aug 2019*

- Designed and developed multi-threaded software system to set hardware configurations and run calibration tests on lasercom terminals, replacing 3-week manual testing with 12-hour automated calibration. (*Poster*)
- Programmed and tested REST API, request-handler, and user interface components of client-server system, increasing accuracy of real-time optical transmission corrections by 3.7x. (*C++, MATLAB*)

Tufts University Department of Computer Science — Medford, MA
Senior Teaching Assistant — *Jan 2018 – Dec 2020*

- Led office hours and curriculum design for graduate students taking Computational Models in Cognitive Science.
- Instructed weekly 2-hr labs on data structure implementations in Discrete Math and Intro CS. (*C++, Python*)

Human-Robot Interaction Laboratory — Medford, MA
Machine Learning Research Assistant — *Jan 2018 – Apr 2018*

- Coded GUI display and extended functionality of neural network modeling language switching cost for bilinguals, optimizing total model evaluation time by 83%. (*Python, PyQt*)

LEADERSHIP

Code for Equity Fellow, Impact Labs – Led 6-person team developing graph algorithms to track misinformation.
Undergrad Representative, Tufts Computer Science Council – Resolved student-departmental concerns with faculty.

PROJECTS

Loan Repayment Likelihood: Built regression model predicting loan repayment via client data, winning hackathon.
Heart Failure Prediction Classifier: Implemented K nearest neighbors, support vector machine, decision tree, random forest, neural network, XGBoost models. Achieved 95.0% predictive accuracy with decision tree model.

SKILLS

Languages: Python, C++, MATLAB, R, SQL, Java, C, JavaScript, HTML/CSS, TypeScript
Technologies/Frameworks: Linux, AWS, Git, Django, Flask, jQuery, TensorFlow, Node.js, Stata, Scikit-learn, Keras, Agile, NumPy, React, Pandas