SHEPARD RODGERS

Beacon, NY (Home) ◇ Medford, MA (School)

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EDUCATION

Tufts University, Medford, MA   September 2023 - May 2027 (expected)

MAJORS: Computer Science & STS (Science, Technology, and Society)   3.95 GPA

HONORS/AWARDS: Dean's List (All Semesters)

RELEVANT COURSEWORK: Reinforcement Learning, Programming Languages, Machine Learning & Data Mining, Linear Algebra, Algorithms, Data Structures, How Systems Fail, Machine Structure & Assembly, Discrete Mathematics

EXTRACURRICULARS: Tufts AI Safety (Director of Technical Programs), The Lantern: Tech Impact Publication (E-Board), CubeSat Team (Technical Lead), JumboCode, Bangin' Everything At Tufts (Former President)

EXPERIENCE

Public Interest Technology - New England | Impact Tech Fellow - ML & SWE   May 2025 – June 2025

Gemini API, Prompt Engineering, Agile, NLP, Data Wrangling, React, MySQL   *Boston, MA*

· Scrum lead for a 5-person team developing an LLM-powered civic tool for Dorchester's 26-block Talbot Norfolk Triangle, serving $2,000+$ residents with insights from 5 years of public safety data and 3 years of community meeting transcripts.
· Apply Agile development practices, conduct dozens of code reviews, and facilitate weekly stakeholder meetings and on-site community engagement to align product features with lived experience and local safety concerns.
· Collect, clean, and filter public safety data; Craft prompts for Gemini to extract sentiment and trends from this data.

Tufts University, Department of Computer Science | Teaching Assistant   January 2024 - Present

C, C++, Assembly, Cache Analysis, Technical Communication, Debugging, Architecture Review   *Medford, MA*

· Support students in the Machine Structure/Assembly Programming and Intro CS courses at Tufts.
· Evaluate the structure and organization of students' code, including modularity, documentation, and formatting.
· Debug C++, C, and Assembly code at the machine level, focusing on computer architecture and modular programming.
· Teach coding skills and abstraction through weekly labs, online forums, and review sessions.

Tufts CubeSat Mission | Software Engineer   October 2023 - Present

Python, Hardware API, Edge Detection, Convolutional Neural Networks, Optimization for Edge AI   *Medford, MA*

· Build a computer vision model to recognize & classify space debris with high speed and accuracy onboard a satellite.
· Enhance in-orbit image capture pipeline by integrating GoPro API for live-feed access.
· Co-author and review a 92-page proposal to launch the CubeSat on a NASA rocket.

PROJECTS

Reading Level Classifier | *Python, Hyperparam. Selection, Cross-Validation, BERT*   February 2025 - March 2025

· Trained a binary classifier to predict age suitability of text excerpts with 70% AUROC accuracy.
· Applied Google's BERT embeddings, grid search, and a multi-layer perceptron to refine model accuracy.

Theatre@First Inventory Website | *TypeScript, React, Tailwind CSS, GitHub, Figma*   October 2023 - May 2024

· Developed a full-stack inventory management system for a non-profit theatre with an agile development team.
· Built a dynamic React UI for streamlined data entry and retrieval, greatly improving usability.

SKILLS

Languages	Python, C/C++, TypeScript, x86 Assembly, SQL (MySQL), HTML, CSS, LaTeX
Frameworks	Gemini API, BERT, Scikit-learn, PyTorch, NumPy, Pandas, Jupyter, React
Developer Tools	GitHub, npm, pip, Conda, Valgrind, Figma, Google Workspace
Methods	Prompt Engineering, OOP, Data Structures, Algorithms, Model Tuning, Bit Packing