ANDREW LAWRENCE

Boston, MA

✉ andrew.e.lawrence@gmail.com · in linkedin.com/in/andrew-e-lawrence/ · ○ github.com/andrewelawrence

EDUCATION

Tufts University | GPA 3.94   **Expected Graduation May 2026**
Candidate for BS in Computer Science & BA in Science, Technology, and Society; Dean's list   *Somerville, MA*
Relevant Coursework: Data Structures, Algorithms, Machine Learning, Machine Structure, Linear Algebra, Discrete Mathematics

La Pontificia Universidad Católica de Chile   **August 2024 - December 2024**
Tufts in Chile Fall 2024 exchange program student   *Santiago, Región Metropolitana, Chile*

Lexington High School | GPA: 4.08 | SAT: 1540   **Sep. 2018 – June 2022**
Honor Roll, Georgetown NAIMUN LXIV Best Delegate, LXIII Outstanding Delegate, USA Lacrosse All-Academic   *Lexington, MA*

SKILLS

Analytical & Technical: AI/ML, REST APIs, Python, C, C++, SQL, Pandas, IBM API Suite, AWS Lambda, Microsoft Office Suite, LaTeX
Business & Communication: Spanish, Copyediting, Workflow Analysis, BPMN, Stakeholder management

EXPERIENCE

Integration Systems Engineering Intern   **September 2024 – December 2024**
CYSCE S.A. Consultores Empresariales   *Santiago, Región Metropolitana, Chile*
- Built and integrated APIs using IBM API Connect, ACE, & MQ, performing comprehensive testing and validation to ensure data flow and system interoperability.
- Developed a bilingual cultural fluency guide to enhance collaboration between Chilean and US businesses, focusing on communication, etiquette, and operational practices.

Digital Transformation Intern   **January 2024 – August 2024**
Tufts Technology Services   *Somerville, MA*
- Engaged with clients to analyze workflows and present custom SaaS solutions. Achieved 23% client and 302% engagement growth during internship by managing workflow stakeholders and aligning goals to quickly finish projects.
- Analyzed back-end API integration constraints and led a system migration to AWS, reducing infrastructure costs by an estimated 15%.
- Developed analytics tools with Python Pandas to track software growth, delivering insights that secured continued executive funding.

Research Assistant   **February 2024 – July 2024**
University of Michigan School of Information   *Remote*
- Served as one of two student content editors for Professor Ben Green's upcoming book, "Algorithmic Realism: Data Science Practices to Promote Social Justice," evaluating and revising content for depth and clarity, while leveraging extensive knowledge of data science principles, ML math, and fairness algorithms.
- Evaluated sources to verify and validate principles and theories presented in the book.

SELECTED PROJECTS & PAPERS

Beyond the Frame of Our Lives: All Light, Everywhere, Surveillance, and the Illusion of Objectivity   **May 2024**
- Analyzed the documentary *All Light, Everywhere* for The Lantern's No. 2 Spring 2024 Magazine, arguing that surveillance technologies are inherently biased and that the framing of observations can undermine objectivity, ethical standards, and the pursuit of truth.

32-bit RISC-V Emulator – UMASM   **April 2024**
- Designed and emulated a 32-bit, 8 register computer, UMASM, in C with a complete RISC-V instruction set and I/O.
- Tested emulation by automating bitpacking translation from the 64-bit Intel x86 instruction set to the 32-bit UMASM RISC-V instruction set.
- Utilized qcachegrind and assembly analysis to profile and optimize system performance, resulting in an average 95.5% reduction in computation time.

Morality, Capability, and the Ethics of Decision-Making AI   **December 2023**
- Examined how mathematical definitions of fairness in algorithms are fundamentally incompatible and can haphazardly reduce important sociotechnical context, ultimately enabling discriminatory output if such algorithms are used arbitrarily.

LEADERSHIP ROLES

The Lantern at Tufts   **Fall 2023 – Present**
Technical Lead, Contributing Writer
- Planned and led monthly meetings of around 15 people, developed curriculum, and organized events for this student-led STS think tank.
- Provided technical consulting to organization partners & members on issues including AI governance and data privacy.

Tufts Club Field Hockey   **Spring 2023 – Present**
Safety Officer
- Collaborated with club leadership team to organize and lead weekly practices of over 25 people.
- Maintained updated knowledge of Tufts emergency protocols and athletic department injury analysis and reporting procedures while certified in CPR, AED, and First Aid.

EXTRACURRICULARS

Organizations: The Lantern at Tufts, Tufts AI Safety Group, Tufts Club Field Hockey, Tufts Club Quadball
Interests: Right to Repair, Sci-Fi novels, cribbage, watch repair, skiing, bouldering