

Maxwell K. Li

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EDUCATION

Cornell University

Ithaca, NY

Bachelor of Science in Computer Science + Operations Research & Information Engineering Aug. 2025 – May 2029

AWARDS

USACO Platinum | C++

Jan 2025

- Advanced to the Platinum Division by solving algorithmic challenges requiring mastery of data structures, graph theory, dynamic programming, and greedy algorithms.
- Developed efficient solutions in C++ under strict time constraints, optimizing runtime and memory usage for large datasets.

PROJECTS

Burger.AI | Python, React, OpenAI API, Anthropic API, Shell

February 2026 – February 2026

- Finalist at the 2026 Cornell AI NYC Hackathon for an automated pipeline to test agentic financial AI systems.
- Used pre-tool and post-tool hooks to validate JSON payloads and redact PII, bridging the "Intent-Action Gap".
- Improved model pass rates of 36% (Sonnet 4.6) and 59% (GPT-4o-mini) to 98% based on OWASP standards.

Debately | TypeScript, React, Claude API, SQLite, Tavily API

November 2025 – November 2025

- Created for Claude Builder's Club Hackathon 2025, allowing users to contribute to structured, fact-based debate
- Claude analyzes arguments to produce summaries, check sources, identify consensus, and detect direct rebuttals
- Sources are verified through Tavily web scraper and synthesized with Claude.

Independent Research | Java, Scikit-learn, Matplotlib, pandas, NumPy, Vaex

May 2024 – July 2024

- Analyzed CIC-DDoS2019 dataset to detect DDoS amplification traffic.
- Developed a supervised ML algorithm with Scikit-learn, achieving 99%+ accuracy
- Used Vaex to plot overall data of the dataset with over 5,000,000 lines

HypathiaBot | Python, NLTK, OpenAI, Redis, Docker, discord.py

May 2025 – July 2025

- Developed a modular Python bot to help automatically moderate servers utilizing ML tools.
- Installed in three servers overseeing 100+ active users with 800+ weekly messages.
- Leverages sentiment analysis with NLTK and OpenAI API to automatically moderate problematic messages

Daylite | Java, Fabric API, ModMenu API

May 2025 – July 2025

- Developed a mod for Minecraft modifying the game's lighting engine to dynamically adjust brightness
- Published on Modrinth, achieving 175+ downloads.
- Wrote efficient Java code to bypass vanilla gamma clamping without impacting performance.

EXPERIENCE

Hack4Impact Cornell — MedExplain | Software Developer

Nov. 2025 – Present

- Led a comprehensive backend and UI overhaul for MedExplain, a nonprofit platform delivering free, accessible medical information to a global user base of .
- Architected scalable API endpoints and optimized database schemas to improve data retrieval speeds and support increasing traffic volumes.
- Redesigned the frontend interface using React and TypeScript, focusing on mobile responsiveness and accessibility standards to ensure ease of use for diverse demographics.
- Collaborated in an Agile environment, participating in code reviews and technical design sprints to translate nonprofit requirements into high-impact software solutions.

TECHNICAL SKILLS

Languages: Java, Python, C++, TypeScript, HTML/CSS, OCaml

Frameworks: React, Flask, Node.js, JUnit, OUnit

Developer Tools: Git, Docker, Google Cloud Platform, Oracle Cloud Infrastructure, Railway

Libraries: pandas, NumPy, Matplotlib, Scikit-learn, Vaex, OpenAI API, Fabric API, discord.py