Maxwell K. Li

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Education

Cornell University Ithaca, NY
Bachelor of Science in Computer Science + Operations Research & Information Engineering *May. 2028*

Awards

Gold Division, U.S.A. Computing Olympiad | *C++* Jan 2025
- Demonstrated strong proficiency data structures and algorithms in C++ under strict time constraints, optimizing runtime and memory usage for large datasets. Gained strong knowledge in object-oriented programming.

Experience

Marko | *Co-Founder* Oct. 2026 – Present
- Won **2nd place** at BigRed//Hacks 2026 and declined a seed offer at a **$2M** valuation to maintain control for our project that turns a single phone scan into an AR indoor navigation tool for spaces where GPS is unreliable.
- Built a LiDAR localization pipeline (SuperPoint, LightGlue, NetVLAD) with **1 cm** accuracy, plus Dijkstra AR routing with voice guidance and a React/three.js venue analytics portal, linked to a LiDAR localization pipeline.

Cornell FinTech Club | *Financial Software Engineer* Sep. 2026 – Present
- Developing an agentic AI risk management pipeline that automates the identification, monitoring, and analysis of portfolio risk exposures as part of a team of student engineers and quantitative researchers.
- Preparing to present the finished project to portfolio managers and technologists at Millennium Management's headquarters in May.

Hack4Impact Cornell | *Software Developer* Nov. 2025 – Present
- Collaborated in an agile development environment across nonprofit projects, including **MedExplain**'s frontend serving **2,000+** monthly users and dashboards for **HVTP**'s network of **250+** wool farmers.
- Architecting **Mavuno**, a cross-platform mobile app for **7,700+** Congolese households, while maintaining the SQL backend for **Anabel's Grocery**, serving Cornell's **20,000+** students.

Projects

Captain | *Python, Lua, PySide6, Whisper, FFmpeg* Aug. 2026
- Built a lightweight DaVinci Resolve plugin that turns clips into word-level transcripts, letting editors delete, reorder, and auto-trim like a document, then apply cuts back as an in-place, ripple, or new timeline.
- Ran fully offline transcription with faster-Whisper and FFmpeg, built a PySide6 editor with silence and retake detection, and designed a file-based JSON-RPC bridge between Lua and Python with keep-range assembly.

MajorScout | *Python, Flask, React, SQLAlchemy, pandas, Stripe, OpenAI* July 2026
- Built a full-stack major-matching platform where a quiz builds a student vector (including SAT/ACT) and ranks **2,000+** programs across **25** universities by cosine similarity blended with selectivity and campus fit.
- Scaled to **2,300+** users in the first month through influencer marketing (**$321** revenue), with Google OAuth, Stripe subscriptions, and OpenAI-powered essay guidance for premium users.

Burger.AI | *Python, React, OpenAI API, Anthropic API, Stripe MCP* Feb. 2026
- **Finalist** at the 2026 Cornell AI NYC Hackathon for an automated pipeline that stress-tests agentic financial AI, models that plan and call tools in a loop, against OWASP-based criteria to generate the perfect guardrails.
- Closed the intent–action gap with pre-tool and post-tool hooks that validate JSON payloads and redact PII, lifting pass rates from **36%** (Sonnet 4.6) and **59%** (GPT-4o-mini) to **98%**.

Technical Skills

Languages: Python, Java, TypeScript, Swift, C, C++, OCaml, Lua, HTML/CSS
Frameworks & Libraries: React, Node.js, Flask, FastAPI, SwiftUI, PyTorch, three.js, PySide6, pandas, NumPy, scikit-learn, OpenAI/Anthropic APIs, Whisper
Tools & Platforms: Git, Docker, Google Cloud Platform, Oracle Cloud Infrastructure, Railway, FFmpeg
Coursework: Honors Data Structures and Algorithms, Functional Programming, Machine Learning, Computer Systems Organization, Linear Algebra, Probability and Statistics