Alan Weng

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EDUCATION

Rensselaer Polytechnic Institute — Troy, NY
Bachelor of Science in Computer Science — *Aug. 2023 – May 2026*

- GPA: 3.74
- Relevant Coursework: Data Structures & Algorithms, Operating Systems, Software Design, Network Programming, Programming Languages, Computational Vision, Deep Learning for NLP

EXPERIENCE

Undergraduate Research Assistant – Supply Chain Negotiation Simulation — Sep. 2025 – Present
Rensselaer Polytechnic Institute — *Troy, NY*

- Collaborate with faculty to design a web-based educational game that trains students in supply chain contracting and negotiation using Generative AI agents.
- Designed core mechanics including contract drafting, AI-driven negotiation strategies, event-driven market shifts, and trust/reputation scoring.
- Developed AI prompting framework to generate negotiation styles (risk-averse, opportunistic, collaborative) and adaptive offers.
- Contributed ideas on learning objectives and outcome alignment to support the project's research direction.

PROJECTS

ResearchPi (Academic Profile Aggregator) | *Python, KeyBERT, OpenRouter* — May 2025 – Aug. 2025

- Integrated five academic sources (arXiv, PubMed, DOAJ, Zenodo, Crossref) and normalized responses into structured profiles.
- Implemented robust fetching with try/except, request timeouts, per-provider rate limiting, and retries; added fallback query strategies (alternate names/IDs) to recover from failed or partial lookups.
- Enriched profiles with KeyBERT keywords and prompt-based LLM tagging/summaries through OpenRouter.

Rensselaer Competitive Programming Club Website | *HTML, CSS, JS, Figma* — Jan. 2025 – Present

- Designed and implemented the club's website to showcase events, board members, and resources.
- Guided peers on UI/UX and accessibility improvements using Figma mockups.
- Collaborated with peers via GitHub Issues for open-source contributions.

Citrus Notes | *React Native, FastAPI, MongoDB* — Jan. 2025 – Apr. 2025

- Led full-stack development of a mobile note app using React Native (Expo) and a FastAPI backend.
- Implemented document capture and processing with OpenCV (edge detection, perspective correction).
- Designed data models and REST endpoints; deployed persistent storage on MongoDB Atlas for organized file/folder management per user.

TECHNICAL SKILLS

Languages: Python, C++, HTML/CSS, JavaScript, Java
Framework & Tools: FastAPI, MongoDB, Git/GitHub, Figma
Libraries: OpenCV, NumPy, Matplotlib, PyTorch, Keras