HENRY BAO

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EDUCATION

Cornell University   **Aug 2023 - May 2025**
Master of Science in Computer Information Science & Information System (Dual Degree), GPA: 3.88/4.00   *New York, NY*

University of Washington   **Sept 2019 - Jun 2023**
Bachelor of Science in Informatics, GPA:3.83/4.00   *Seattle, WA*
Honors: Cum Laude, Dean's List Recipient (2020 - 2023)

WORK EXPERIENCE

KPMG US   **June 2024 - Aug 2024**
Software Engineer Intern   *Denver, CO*
- Developed a proof-of-concept chatbot from scratch to complement an existing tax tool, improving information accessibility for **10,000+** tax and non-tax personnel across the organization.
- Leveraged LangChain and LangGraph technologies to create a scalable Retrieval-Augmented Generation (RAG) application, integrating with **over 1,000 API endpoints** of the KPMG Fixed Asset Lifecycle Navigator.
- Engineered an AI-driven solution that dynamically selects appropriate API endpoints, gathers necessary parameters from users, executes requests, and summarizes complex tax information for easy comprehension.
- Refactored existing Generative AI chatbot extension for transforming excel data, reducing task process time from an average of **40 mins to under 5 mins** through efficient token management and parallel processing.
- Collaborated with data analysis and consulting groups to identify business needs, product relevance and effectiveness.

NetPrism Inc.   **Jun 2022 - Oct 2023**
Software Engineer & Co-Founder   *Seattle, WA*
- Led a startup specializing in user-friendly buyer intelligence application development, with the flagship app, Restock Alerts, a tool for providing real-time stock availability notifications, garnered a user base of **15,000+** across various platforms.
- Enhanced the system with server-side load balancing, asynchronous processing, and priority task queuing, streamlining data extraction, analysis, and processing for **20+** major online retailers and **over 1TB** of e-commerce data on a monthly basis.
- Reduced monthly infrastructure costs by **$3,400+** via self-managed cellular proxies for web-scraping and open-source services such as a WireGuard overlay network for internal microservice communication, GitLab, and Bitwarden.
- Elevated company valuation to **$4MM+** by raising pre-seed funding from MiraclePlus (formerly YC China).

University of Washington   **Mar 2023 - Jun 2023**
Teaching Assistant   *Seattle, WA*
- Lectured weekly interactive web development sessions, engaging in discussions, hands-on coding example, and real-time problem-solving for **30+** students in React.js, HTML/CSS, and Firebase.
- Mentored **9** project groups through code reviews, iterative project design feedback, and the application of Agile methodologies, resulting in **8 out of 9** of group projects receiving above-average evaluations.

PROJECTS

HomeLab (Self-Hosting)   **Mar 2022 - Present**
- Engineered and managed a home server using Ubuntu to host personal portfolios, file/photo cloud drives, and Plex media services, integrated with a Synology NAS system for centralized, secure file sharing and automated backups.
- Ensured reliable and scalable orchestration of 20+ diverse applications leveraging Docker containerization.
- Implemented Zero Trust security architecture with Cloudflare DNS for beyond-LAN authentication and remote access.
- Participated in self-hosting and open-source communities such as r/SelfHosted, exchanging insights and skills in network management, cybersecurity, and system administration relevant to modern software development practices.

Vade   **Dec 2020 - May 2022**
- Developed a Discord bot with automated server moderation and an advanced music playlist system, integrating reaction-to-command functionality to enhance accessibility for users with visual and auditory impairments.
- Engaged with 1,000+ diverse communities through direct outreach and word-of-mouth on Discord, resulting in a user base growth to 300,000 users within 5 months of launch.

SKILLS

Languages: JavaScript, TypeScript, Java, Python, Swift, Golang
Frameworks/Libraries: LangChain, LangGraph, React, Next.js, Tailwind CSS, Bootstrap, Express, Puppeteer
Tools/Technologies: Docker, SQL, MongoDB, AWS, DNS, Nginx, Zero Trust, Postman, Linux, GitLab CI