KEN WU

(647)-918-1903 | ken.wu4314@gmail.com | LinkedIn | GitHub

EDUCATION

University of Waterloo — Waterloo, ON
Computer Science and Finance — *Sep 2023 – Dec 2027*

TECHNICAL SKILLS

Languages: Python, C, C++, Java, Javascript, HTML, CSS, Racket, Dart
Developer Tools: Git, Docker, AWS, Azure, Google Cloud SDK, BigQuery, Terraform, Helm
Technologies: Kubernetes, MongoDB, REST API, Vertex AI, OpenAI, VectorDB, pandas, NumPy

EXPERIENCE

Geotab — Toronto, ON
AI Agent Developer — *Jan 2025 – May 2025*
- Collaborated with a team of five to create state-of-the-art generative **AI agents** to automate internal tasks.
- Developed a cost-saving agent with **self-evaluation and reinforcement learning** using Vertex AI and Gemini 2.5 Pro to **optimize real-time CPU core usage** in Google Cloud saving Geotab **over $1,700** of costs daily.
- Re-engineered the Superset agent used to automate **superset** dashboard management to leverage **metadata indexing in RAG** from GCS buckets, enhancing data retrieval accuracy and response times **by 30%**.
- Designed and implemented **Geotab GPT** using Geotab's GenAI Gateway and OpenWebUI, an internal AI experimentation platform for deploying and customizing multiple LLMs.

GenAI & Machine Learning Ops — *May 2025 – Aug 2025*
- Improved GenAI Gateway performance by refactoring core modules, resulting in a **25% reduction in latency** and a **30% decrease** in system downtime for internal users, creating a 50% increase in productivity.
- Developed and thoroughly tested an automated load testing **CI pipeline** in GitLab using Locust for onboarding new AI models.
- Ensured each model met performance benchmarks pre-deployment, reducing post-release incidents by **20%**.

Confidential Tech Company (Stealth Startup) — Remote
Backend Developer — *Aug 2025 – Present*
- Engineered and deployed scalable backend services to integrate over **5+ financial APIs**, enabling seamless **bank card linking** and automated budgeting for users with an implemented transaction blocking feature.
- Developed robust authentication and real-time transaction synchronization, ensuring **99.9% uptime** and high data security.
- Leveraged highly optimized **AI models** to automatically categorize user transactions in **under one second**, empowering **category-specific budgeting** and personalized financial insights.
- Drove technical initiatives that attracted over **$350K in early funding interest** from investors.

Microsoft - Azure & Artificial Intelligence — Remote (Waterloo, ON)
Project Team Member — *May 2024 – Aug 2024*
- Created a working prototype of a financial investment coach, generating a projected 2% monthly returns using **Azure AI** and Azure services, including Azure Bot Services and Azure Web Services.
- Collaborated with industry professionals to deliver a **production-level** product, combining strategy and cross-team coordination.

PROJECTS

Coinbase Algorithmic Trader | *Python, MongoDB, REST, Docker, Pandas, Prophet* — Apr 2024 – Present
- Developed a full-stack algorithmic trading application leveraging **Python**, **RESTful Coinbase APIs**, and **AI-driven quantitative analysis**, achieving **0.2% daily returns** with **20+ daily users** and over **1000 transactions** logged per day.
- Integrated and deployed a stock advisor bot via **Telegram API** and **Streamlit Cloud** using **Docker** and **CI/CD**, improving accessibility and user engagement.

Spotify Playlist Creator | *Python, Flask, Spotify Web API, OAuth2, JavaScript* — Jun 2025 – Jul 2025
- Designed and implemented a **full-stack web application** for AI-powered Spotify playlist creation with 20 daily users, integrating the **Spotify Web API** and **OAuth2 authentication**, enabling users to generate personalized playlists in under 5 seconds.
- Built dynamic playlist customization via an **intuitive React-based UI** and Python backend, leveraging user sentiment analysis and audio feature extraction to generate playlists tailored to mood, activity, and listening history.
- Enhanced application security and reliability by deploying robust **token refresh mechanisms**, advanced session management, and comprehensive error handling, reducing authentication-related errors by 90%.
- Implemented privacy-first data handling by processing all Spotify data in-memory only, discarding user data after session ends, and publishing transparent policies to comply with GDPR and platform requirements.