Ruiquan (Richard) Su

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Education

University of Waterloo Waterloo, ON

Computer Engineering, Hon. Coop, President's Scholarship with Distinction, GPA: 4.0/4.0 *Sept. 2024 - Present*

Experience

Software Developer September 2025 - December 2025

Lynkr Inc. *Toronto, ON*

- **Co-developed**, with one other developer, the company's **core** product, Lynkr Workbench, from **scratch** to **beta**, generating over **500,000 CAD** in SaaS revenue and serving **2,800+** individual customers.
- Designed the backend **architecture** with **FastAPI** and **Next.js**, and built the **Enterprise tier** featuring **RBAC**, member management, SAML SSO, seat control, agent migration, department assignment, etc.
- Used **LangGraph** to build **dual LLM pipelines** enabling users to **create** and **run autonomous AI agents** with **MCP** service calls. Data is stored with **PostgreSQL**, and user secrets managed using **Google Cloud**.
- Implemented **memory**, and built a **decision tree** to **categorize memories** and enable **case-based RL**.
- Further built a billing system for purchasing tiers and tokens via **Stripe**, and a **usage tracker** enforcing usage limits, which fetches token data from **LangFuse**.
- Seeded **vector embedding** for the service endpoints, and a **similarity search** to quickly fetch services & endpoints based on a natural language prompt.

Control Software Developer January 2025 - April 2025

SIOUX Technologies (Asia), Jiangsu Industrial Technology Research Institute (JITRI) *Suzhou, China*

- Cut on-site deployment time **from 98 hours to 20 hours** by designing and developing concurrent **streamlined installation and upgrade processes**, reducing manual overhead via GitLab **CICD pipelines** and **scripting**.
- Refactored existing services into **organized packages** and developed **Blazor-based API controllers** to automate installations, enabling **direct customer access**.
- Organized and led **company-wide Git training sessions** to enhance version control proficiency across teams.

Project Selection

SnapLearn | *Flask, PyMuPDF, SciKit-learn, Next.js, Auth0, spaCy* January 2025 - May 2025

- Built an app with **Next.js and Flask** to take in a textbook uploaded by the user and the time they plan to study every day, and regenerate the topics the textbook covered into a curriculum that fits the user's schedule.
- Designed a Python **algorithm** that takes in any variety of topics, and uses **NLP techniques**, as well as **cosine similarity search**, to determine their dependency relationship in learning, and creates a directed acyclic graph.
- Trained a **small-sized language model** to estimate the time needed for an average person to study a certain topic with all pre-requisite knowledge acquired.
- Developed a **greedy algorithm** to fit the course content into the user's schedule, while also balancing it with practice sessions. Then used an **LLM** to generate the course content with the specified length.

QuickSilver | *Python, Socket, IPAddress, re, pybluez, Tkinter, PyInstaller* April 2025 - May 2025

- Built a **broadcaster-receiver pair** that broadcasts information to **every receiving machine in the LAN**
- Developed a file **sending and receiving system** via a **TCP or RFCOMM connection** that can validate and send files to **any computer** on the LAN or with Bluetooth, and a validation mechanism when receiving files.
- **Automated** the build process on release using **CICD** pipelines via **GitHub Actions**.

WatIsLife | *Python, JavaScript, React, Flask, GSM* December 2024 - January 2025

- Developed a **web API** that **records** the user's speech and uses **Google Speech Module** to count how many times a certain phrase was said and **stores** the count in a **database**.
- Fine-tuned a **Llama** LLM model to translate the slang in the user's speech into common English. Data sourced from scraping several teenager subreddits.

Technical Skills

Languages: Python, C/C++, C#, SQL (Postgres, MySQL), JavaScript/Typescript (React, Next), Powershell, YAML
Developer Tools: Git, Node, Yarn, Docker, VS Code, Jupyter, Anaconda, NSIS, NuGet, Vim, Jira, IntelliJ
Libraries: pandas, NumPy, Matplotlib, Tkinter, PyKrige, Flask, FastAPI, MCP, Pydantic, Tensorflow, sklearn, spaCy