

# Kunlin Ruan

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## Education

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University of Michigan | **B.S. Data Science** | GPA: 3.7/4.0 Sep. 2023 - Apr. 2025  
Shanghai Jiao Tong University | **B.S. ECE** | GPA: 3.5/4.0 Sep. 2021 - Aug. 2025

## Skills

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- **Programming Languages:** Python, C/C++, Typescript, JavaScript, HTML, CSS, Java, Dart, MATLAB, R
- **Frameworks/Libraries:** React.js, Next.js, REST, Django, Flask, Express.js, Node.js, Flutter, Django Channels
- **Databases/Cloud:** Supabase, Firebase, MongoDB, Redis, MySQL, GCP, Azure, AWS

## Research Experience

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**Undergraduate Research Intern**, [Lifelong Learning Lab](#) – Ann Arbor, MI Feb. 2024 – Present

- Conducting in-depth research on **AI assistance** in Human-AI collaborative tools in the context of note-taking.
- Overseeing backend operations and deployment processes by developing **RESTful APIs** and managing databases using **Django ORM** on **Google Cloud Platform**, ensuring robust and efficient system performance.
- Developing **WebSocket** API endpoints using **Django Channels** and **Redis**, and implementing task queues with **Django Q** to support large-scale, real-time studies, providing a scalable and reliable communication infrastructure.
- Automating real-time transcript display and summary generation, integrating **Microsoft Azure Cognitive Services** and **ChatGPT** API to enhance user engagement and learning efficiency. Building an interactive learning interface with **React.js**. Focusing on **prompt engineering** to lower AI response failure rate and better response quality.

## Work Experience

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**Software Engineer Intern**, Graph Academy – Cupertino, CA Jun. 2024 – Present

- Integrating and testing performance of large language models, including **HumeAI** and **OpenAI Whisper Model**, to analyze user personalities and extract user keywords in real-time audio conversations.
- Leveraging **Supabase** and **Azure** for efficient data management. Architecting **API endpoints** for user workflows using **TypeScript**. Monitoring and adjusting database structures and backend fetching logic, significantly reducing latency.
- Collaborating with cross-functional teams to create both web and mobile app using **Next.js**, **Flutter**, **Vercel** and **Figma**. Enhancing animation using frameworks like **Paper.js** and **Matter.js**. Monitoring performance with **Google Analytics**.

**Software Engineer Intern**, Niwenn – Ann Arbor, MI May. 2024 – Present

- Establishing **API endpoints** using **Express.js** to develop an enterprise blog system and user comment system.
- Utilizing **AmazonRDS** and **AWS S3** for efficient data management. Performing **stress testing** using **Apache JMeter** to evaluate performance and scalability under high traffic conditions. Monitoring with **CloudWatch**.
- Building functional UI using **Next.js** and **Tailwind CSS**. Partnering with the data team to visualize data analytics.

**Software Developer - AI Trainer - Contract**, DataAnnotation – New York, NY Apr. 2024

- Executed rigorous assessments of AI-generated codes to uphold industry standards and better user experience.

**Web Development Intern**, The Michigan Daily – Ann Arbor, MI Feb. 2024 - Apr. 2024

- Managed and maintained backend for The Michigan Daily website using **PHP**, and **TypeScript**.
- Built a light website version for low WiFi regions using **Astro**, reducing JavaScript payloads and improving load times.

## Project Experience

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**SnapMeal App** <https://devpost.com/software/snapmeal> Apr. 2024

- Led a team of four to build a grocery-logging and recipe-generation system encouraging more sustainable and convenient home cooking in the **Google x MHacks AI Hackathon** within 24 hours; score: 3 likes out of 3 judges
- Leveraged **Gemini-Pro-Vision**, **Gemini-Pro** models and **Flask** to seamlessly transform grocery images into logged data, and subsequently into a flexible number of meals, complete with AI-guided cooking steps. Designed **UI/UX** in **React.js**.

**Lipstick Expert** <https://lipstickexpert.netlify.app/> Feb. 2024 - Mar. 2024

- Developed a **web scraping pipeline** using **BeautifulSoup**, **Youtube API**, and **Sephora API** in **Python**, automating data collection, preprocessing, and storage. Built a robust scoring system and implemented **NLP** sentiment analysis.