

Austin Liu

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EDUCATION

Brown University

Providence, RI

Bachelor of Science in Computer Science and Economics with Entrepreneurship Certificate

Expected May 2027

- Relevant Coursework: Statistical Inference I, Computer Science Integrated Introduction, Principles of Economics, Management of Industrial and Nonprofit Organizations

EXPERIENCE

Back End Developer

June 2024 – Present

Stealth Startup

Remote

- Designed and implemented backend architecture for an **MVP** utilizing **Firebase** for a **NoSQL database** to securely store user data, and **Node.js** to efficiently manage high-volume request handling.
- Integrated backend with **third-party APIs** including the **Edamam API** to deliver comprehensive nutritional data and the **ChatGPT API** for advanced smoothie personalization.

Data Product Engineering Intern

February 2024 – May 2024

MyDataProduct

Remote

- Conducted **SPIKEs** on industry-standard APIs (e.g., **Google's NLP API**) and successfully integrated them
- **Automated** development operations to speed up weekly production deployments by creating a script for **GCP SSL certificate renewal**
- Designed **YAML** configuration files with consideration for the **downstream impact**
- Participated in **daily stand up meetings** and conducted **Quality Assurance (QA) reviews** on merge requests to enforce team practices and adherence to industry standards

Research Assistant

September 2021 – May 2023

Connected Autonomous Vehicular System Research Lab at University of North Texas

Denton, TX

- Created Phantom Traffic Jam Project using **ROS** and **C++** to reduce congestion on roads
- **Mastered reactive methods** (i.e. PID controller, Wall Following, Follow the Gap) through F1tenth, creating a **complete Cooperative Car Following Model**
- **Honorable Mention** at 2nd Design Competition on Networked Computing on the Edge (International Postgraduate Student Competition)

PROJECTS

Guitar Tab Transformer | *React, Bootstrap, Tensorflow, Keras*

June 2024 - Current

- Used preprocessing techniques on state-of-the-art **DoReMi OMR (Optical Mark Recognition) dataset** (e.g. **one-hot encoding, normalization**) to prepare data/labels for **supervised learning**.
- Developed **Convolutional Neural Network (CNN)** to perform **binary and multiclass classification**.
- Developing a **Recurrent Neural Network (RNN)** to convert songs from **.mp3 files** into **guitar tablature**

Find My Food | *React, AWS, Flask, MySQL*

January 2024 - May 2024

- Developed real-time dining hall menu tracking project with **CI/CD pipelines (Jest and Pytest)**
- Designed **AWS Lambda** functions to automate the life cycle of **RDS instances**, and to set up temporary **NAT gateways**, significantly decreasing operational expenses by **87.5%**
- Created **Python** web scraper with **BeautifulSoup4** package, which runs weekly and asynchronously

LEADERSHIP

VP of Technology

September 2023 – Present

Brown Technology Consulting Group

Providence, RI

- Oversaw the **club's website** (using **React**) and provided **expert guidance** on all software-related inquiries
- Revamped **revenue model** for social media influencer marketplace startup by performing **competitor analysis**, assessing the current **value proposition**, and formulating detailed **recommendations**

TECHNICAL SKILLS

Languages: C++, Java, Python, JavaScript, TypeScript HTML, CSS

Frameworks: React, ROS (Robot Operating System), Flask, NodeJS, Tensorflow, Keras

Tools: GitHub, GitLab, Ubuntu, Firebase, AWS, GCP