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: Introduction to Computer Systems, Program Design with Data Structures and Algorithms, Design and Analysis of Algorithms, Foundations of AI, Intermediate Microeconomics, Intermediate Macroeconomics

EXPERIENCE

Software Engineer Intern   June 2024 – August 2024
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
- Aided weekly **DEV-to-PROD** deployments by ensuring all code was thoroughly **tested** and ready for **release**
- Automated **development operations**, including scripting **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 (**e.g. one-hot encoding, morphology operations, binarization**) on DoReMi OMR (Optical Music Recognition) dataset to prepare data/labels for **supervised learning**.
- Developed **Convolutional Neural Network (CNN)** to perform **binary** and **multiclass classification**.

Find My Food | *React, AWS, Flask, MySQL*   January 2024 - May 2024
- Developed real-time **dining hall menu tracking project** with **hundreds of monthly visits**
- 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