Brian Lim

(925) 523-9929 brian01.lim@gmail.com linkedin.com/blimmie BLimmie.github.io

Experience

Amazon Oct 2021 – Present
Backend Software Engineer *Redmond, Washington*
- Led and maintained critical project for ground antenna control, allowing Project Kuiper to communicate with satellites during the initial Protoflight mission, ensuring close to 100% uptime for available communication time
- Directed and executed 2 key projects to ensure encryption of internet traffic between Amazon and Kuiper customers, hardening traffic against all 4 critical attack vectors including vulnerable ground-to-satellite communication
- Hardened microservices on customer phased-array antennas to monitor hardware issues and automatically recover from defects and errors, reducing support burden by over 90%

University of California - Santa Barbara Mar 2020 – Jun 2021
Teaching Assistant, Project Manager, Machine Learning Researcher *Santa Barbara, California*
- Managed 50 students across 10 industry-backed, student-led projects with UCSB's Computer Science Capstone by reviewing designs and acted as the customer to provide feedback

Muncaster Consulting Jul 2018 – Sep 2020
Full Stack Machine Learning Engineer *Goleta, California*
- Developed, trained, and deployed deep learning models for object detection in security systems and self driving vehicles for FLIR's thermal cameras to an industry standard accuracy of about 85%
- Implemented entire integration and ML model regression test suite and framework for FLIR's thermal imaging SDK, reducing the number of bad model changes to 0
- Automated optimization pipelines completely for build process of ML models, eliminating 99% of human validation of model performance

Workday Jun 2019 – Sep 2019
Data Engineering Intern *Pleasanton, California*
- Deprecated legacy data ingestion tool written in Scala by creating a scalable replacement in Golang and Apache Kafka, letting 2,000 employees access internal data in real time instead of a daily updating database
- Revamped legacy XML parser in Golang by introducing standardized configuration practices and automated data validation mechanisms, minimizing the occurrence of erroneous data inputs into the data warehouse by nearly 100%

Education

University of California - Santa Barbara
Master of Science in Computer Science *Santa Barbara, California*
- **Thesis:** Ecological Inference using Constrained Kalman Filters for the COVID-19 Pandemic
- **Summary:** Predicted the demographics of people who were infected with COVID-19 when only given aggregate statistics

University of California - Santa Barbara
Bachelor of Science in Computer Science *Santa Barbara, California*

Projects

Yangbot | *Python, PostgreSQL, Google Cloud, Heroku*
- Programmed a Discord bot in Python for the UCSB Discord that provides school utilities for students, detects toxicity in messages, and acts as the middleman in user-moderator interactions, improving chat experience for over 1,000 students
- Manage a team of 3-4 student developers to reduce technical debt and improve user usability

Interlinked | *Golang, Google Cloud, AWS, MongoDB, Typescript, Heroku*
- Collaborated with Teladoc to create a web application that conducts mental health appointments aided by real-time AI so doctors can focus on patient treatment instead of spending 50% of appointment time note taking
- Developed a scalable system that can process patient video 4 times per second and store over 10,000 datapoints per video session per patient

Eyewire 3D Segmentation | *Python, Pytorch, REST*
- Invented a stochastic machine learning model based on uncertainty for 3D image segmentation to map a rat's glial neurons alongside a crowdsourced citizen science research project, reaching a segmentation accuracy of 95%

Technical Skills

Languages: Python, Rust, Go, C++, TypeScript, R, Java, C, Javascript, Scala, Bash, C#, SQL
Technologies: Pytorch, Tensorflow, Docker, Git, Jenkins, AWS, Google Cloud, MongoDB, PostgreSQL, GraphQL, OpenCV, Spark, Kafka
Concepts: Machine Learning, LLMs, Cloud Computing, NLP, Computer Vision, AR/VR, Project Management, Networking, Embedded Software