

Brian Liao

Software Development Engineer

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Experience

Amazon AWS, Boston, MA - SDE Intern (May - August 2019)

- Worked on the Elastic File System (EFS) Team which manages a **distributed file system service on AWS**.
- Intern project was to create a testing framework that ensured EFS follows the **NFS Protocol** and would help **identify kernel bugs in Linux and EC2 instances backing EFS**.
- Created framework that could send a **distributed workload to multiple EC2 instances** connected to an EFS file system. Allowed for testing of file input/output, lock management, and load shedding **failover scenarios**.

Using: Python, Boto3, Argparse, EC2, DynamoDB, EFS, S3

Amazon, Seattle, WA - SDE Intern (May - August 2018)

- Worked on the Box Team in Amazon Fulfillment Technologies which manages software for **shipping box sizing**.
- Project was designed to address the issue of the **difficulty in debugging incorrectly fitted boxes** resulting in several vague support tickets to my team per week by fulfillment center operations.
- Solved this issue by updating the UI to show **order data** that **explained the box choices** and display **alternative boxes to choose**. This successfully **reduced the number of support tickets** given to my team.
- Scaled in production to handle over **3 million box transactions per day** for items sold on Amazon in **over hundreds of fulfillment centers worldwide**.

Using: Java, Lombok, JUnit, Mockito, Spring, JSP, AWS, and S3

Berkeley Swarm Lab, Berkeley, CA - Computer Vision Researcher (January 2018 - Present)

- Worked with robotics professor Kris Pister on using **computer vision** to do **object detection and localization of drones**.
- Designed computer vision algorithms able to **track drones** using **deep learning under constraints of low-level hardware**.

Using: Python, OpenCV, TensorFlow, and Keras

Education

UC Berkeley, Electrical Engineering and Computer Science - Research Track, MS

AUGUST 2019 - MAY 2020

UC Berkeley, Computer Science, BA

AUGUST 2017 - MAY 2019

Skills

Languages

- Java, Python, Go, C
- JavaScript, HTML, CSS

Technologies and Frameworks

- **Unix, Linux**
- **AWS:** EC2, DynamoDB, Lambda, S3, EFS
- **Java:** Spring, JSP, Guava, Lombok, Log4J, JUnit, Mockito, JMX
- **Python:** Jupyter, Boto3, NumPy, Pandas, PyTorch, TensorFlow, OpenCV

Areas

- Cloud Computing, Large Scale Software Systems, Distributed Systems
- Machine Learning, Computer Vision