CHRISTOPHER NIU

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EDUCATION

University of California, Berkeley *Berkeley, CA* Aug 2017 - Dec 2019
Bachelor of Arts in Computer Science
Distinction in General Scholarship, GPA: 3.78/4.00

Thomas Jefferson High School for Science and Technology *Alexandria, VA* Sep 2013 - Jun 2017

COURSES

Machine Structures
Efficient Algorithms and Intractable Problems
Principles and Techniques of Data Science
Computer Security
Introduction to Machine Learning
Operating Systems and System Programming

EXPERIENCE

Amazon, Prime Video *Seattle, WA* May 2020 - Present
Software Development Engineer I
- Worked on the design and implementation of a large-scale quality check orchestration service for Prime Video content.
- Created an aggregation technique to process large quantities of quality check validation results to surface a comprehensible description of quality checks to partners and indicate whether their content can be auto-corrected or requires re-delivery.
- Communicated with external teams from UK and India to integrate new quality check validators to the orchestration service.
- Developed crucial mechanisms for operational excellence within the team by creating new metrics, setting and adjusting alarms, and writing a script to backfill missed data.
- Technologies used: **AWS** (**LAMBDA**, **DYNAMODB**, **S3**, **SQS**, **STEP FUNCTION**, **API GATEWAY**).

UC Berkeley, EECS Department *Berkeley, CA* Aug 2019 - Dec 2019
Undergraduate Student Instructor
- Worked as a teaching assistant for COMPSCI 161, the Computer Security course at UC Berkeley.

Amazon, Prime Video *Seattle, WA* May 2019 - Aug 2019
Software Development Engineer Intern
- Built a face clustering service for use in various asset enrichment projects, which involved finding, implementing, and optimizing a suitable clustering algorithm (Chinese Whispers).
- Technologies used: **NUMPY**, **AWS** (**SAGEMAKER**, **ECR**, **S3**), and **DOCKER**.

MITRE, Data Engineering and Biometrics Department *McLean, VA* Jun 2018 - Jan 2019
Biometrics Intern
- Developed a crowd anomaly detection component module using Gaussian mixture models for a video-processing decision framework.
- Technologies used: **NUMPY**, **OPENCV** and **SCIKIT-LEARN**.

SKILLS

LANGUAGES Java, Python, C, SQL, JavaScript
FRAMEWORKS React, Django, NumPy, pandas, scikit-learn
TOOLS Git, AWS Lambda, AWS DynamoDB, AWS S3

PROJECTS

Online Board Games
- Built an online platform for playing various board games remotely with friends.
- Technologies used: **REACT**, **DJANGO**, **CHANNELS** (**WEBSOCKETS**).

End-to-End Encrypted File Sharing System
- Designed and implemented a file sharing system that protects user privacy.
- Technologies used: **GOLANG**.