Guanyu Zhang

+1 (925)-580-1804 • evanz1627@gmail.com • https://github.com/guanyu-zhang
https://www.linkedin.com/in/guanyuzhang/

WORK EXPERIENCE

Alipay   Sunnyvale, CA
Software Engineer   Jan 2023 – present
- Designed and delivered APIs for Amazon's Payment Service Provider compliance program, scaling to **20k+ daily invocations** and reducing response latency from **130ms to 60ms** through **asynchronous messaging** and **query optimization**.
- Integrated Alipay as a Shopify payment provider, supporting both wallet and card payments; enabled 300+ merchants and processed **1,300+ daily transactions**.
- Designed and implemented core backend components for Venmo and PayPal integration on AliExpress, scaling a **500+ pod microservice system** to sustain **2,000–3,000 TPS** and serve **2–3M daily buyers**.
- Implemented cross-border virtual account service with **Java Spring Boot** and distributed transactions, enabling **$12M+ weekly volume** across 15+ regions with zero transaction fees.
- Diagnosed and resolved critical production refund failures via distributed tracing, identified misconfigured deployments, and updated release practices to prevent recurrence.
- Developed internal AI-powered testing tool with **RAG and LoRA (Qwen2-7B)** to auto-generate E2E test cases from code diffs, integrated into CI/CD pipelines to improve regression coverage and reduce manual QA effort.

Qingdao Anzhi Capital Management   Shanghai, China
Software Engineer Internship   Oct 2020 – Jan 2021
- Built and maintained transaction databases using **MySQL and MongoDB**, supporting daily financial ops.
- Developed Python-based fault-tolerant data transfer tool, ensuring continuity under outages.
- Designed volatility-based predictive models, visualized with Python; results used daily by strategy developers.

PROJECTS

AWS cloud native application   Oct 2021 – Dec 2021
- Collaboratively designed and developed a web application on **AWS** using Agile methodologies within a team of four. Leveraged services and tech stacks including **EC2**, **Relational Database Service**, **S3**, **lambda function**, Amplify, Elastic Beanstalk, Next.js and Python

Improving annotation reliability of real-world collected speech data   Nov 2020 – Dec 2020
- Focused on the speech data collected from commercial sensors, applied feature extraction skills including **MFCC** and pre-trained neural networks to develop a pipeline to transform raw speech data into formatted two dimensional input
- Created a classifier based on the **VGG-S** net to label the speech instances of uncertain speakers by thresholding the output confidence values of the model. The model improved the F1 score by **~5%** compared to the benchmark RF model

EDUCATION

Columbia University   New York, NY
M.S. in Computer Science, Machine Learning Track (GPA: 3.70)   Dec 2022
- Job: Course Assistant for COMS 6156 Cloud Computing

The University of Texas at Austin   Austin, TX
B.S. in Mathematics (GPA: 3.88)   Aug 2021
- Honors: College Scholars

TECHNICAL SKILLS

- **Tech Stacks:** Python, Go, Java, JavaScript, HTML5/CSS, SQL, EC2, Amplify, CloudFront, API Gateway, RDS, Elastic Beanstalk, S3, MySQL, MongoDB, Google BigQuery, Redis, PyTorch, scikit-learn, Transformers
- **Computer software:** Github, LaTeX, Visual Studio Code, Next.js, jQuery, Docker, Kubernetes with Minikube, PySpark with Dataproc