

Guanyu Zhang

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

WORK EXPERIENCE

Ant Group

Software Engineer

Sunnyvale, CA

Jan 2024 – present

- Designed and implemented a new **in-memory cache framework** in **Java** to replace a tightly coupled legacy system, **de-coupling DAO dependencies** for reusability and adding **transaction support** for atomic cache operations. The framework now supports one of Ant Group's core production workloads.
- 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**.
- 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 reliability of testing, increase regression coverage, and reduce manual QA effort.
- 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**.

Alipay

Software Engineer

Sunnyvale, CA

Jan 2023 – Dec 2023

- 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 production refund failures using **distributed tracing**, identified misconfigured deployments, and updated release practices to prevent recurrence, improving **system reliability**.
- Integrated Alipay as a Shopify payment provider, supporting both wallet and card payments; enabled 300+ merchants and processed **1,300+ daily transactions**.
- Implemented a **CI/CD pipeline** for the UI of a digital wallet application, primarily using **CommonJS**.

Qingdao Anzhi Capital Management

Software Engineer Internship

Shanghai, China

Oct 2020 – Jan 2021

- Developed 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

- Collaborated in a team of four to design and build a **cloud-native web application** on **AWS**, leveraging **EC2**, **RDS**, **S3**, **Lambda**, **Amplify**, and **Elastic Beanstalk**, with a **Next.js** frontend and **Python** backend.

Improving annotation reliability of real-world collected speech data

Nov 2020 – Dec 2020

- Developed a pipeline using **MFCC** features and pre-trained **ResNet** models to process raw speech data, and built a **VGG-S** based classifier that improved F1 score by **~5%** over the RF baseline.

EDUCATION

Columbia University

M.S. in Computer Science, Machine Learning Track (GPA: 3.70)

New York, NY

Dec 2022

- Job: Course Assistant for COMS 6156 Cloud Computing

The University of Texas at Austin

B.S. in Mathematics (GPA: 3.88)

Austin, TX

Aug 2021

- Honors: College Scholars

TECHNICAL SKILLS

Python, Go, Java, JavaScript, SQL; AWS & GCP; MySQL, MongoDB, Redis; Docker, Kubernetes; PyTorch, scikit-learn, Transformers, PySpark