Guanyu Zhang

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WORK EXPERIENCE

Ant International (Ant Group)   Sunnyvale, CA
Software Engineer   Jan 2024 – present
- Designed and implemented a new in-memory cache framework in Java to replace a tightly coupled legacy system, decoupling 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   Sunnyvale, CA
Software Engineer   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.
- Resolved production refund failures using distributed tracing, fixed misconfigured deployments, and improved release practices to prevent recurrence, enhancing 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   Shanghai, China
Software Engineer Internship   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.

Speech Data Annotation Reliability Project   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   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

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