

Jeff Xie

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TECHNICAL SKILLS

Programming Languages: Python, Java, C, C++, Rust, SQL

Backend & APIs: REST APIs, GraphQL, Authentication, Authorization, Data Persistence

Cloud & Infrastructure: AWS (S3, CloudFront, Route 53, IAM), Docker, Kubernetes, CI/CD

Databases & Caching: Relational Databases, SQL, Redis, Schema Design

Observability & DevOps: Logging, Metrics, Tracing, Monitoring, Linux, Git, Agile/Scrum

Selected Backend Projects:

- Built a client-server broker system using TCP and UDP, handling message routing, connection management, and network-level communication in a distributed backend environment.
- Develop an educational platform using Mixed Reality and Apple Vision Pro for autistic children.
- Designed and implemented a relational database schema in SQL for a music store web application, supporting data persistence, query optimization, and backend integration.
- Designed and deployed a backend-supported personal website using AWS S3, CloudFront, and Route 53, implementing HTTPS, IAM-based access control, and CI/CD pipelines for automated deployments.

EDUCATION

Master of Science in Computer Science

2021-2025

University of Houston-Clear Lake, Houston, TX

- Relevant Courses: Machine Learning, Advanced Operating Systems, Computer Organization and Assembly Language, Database Management Systems, Concurrent Programming and Software Modeling, Cybersecurity, Network Security, Algorithms

Bachelor of Arts in Astrophysics

2015-2019

Columbia University, New York, New York

- Concentration in computer science

PROFESSIONAL EXPERIENCE

Software Engineer

2025

Artian AI

- Architected and delivered backend observability systems using Arize, including centralized logging, tracing APIs, audit persistence, and metrics pipelines integrated across distributed services.
- Built a scalable metrics platform tracking instance, solution, version, and agent performance, with support for database APIs and CLI tooling to enable future analytics expansion.
- Built a journaling mechanism within backend services using MongoDB and Redis to persist state changes and system events with reliable ordering and durability.
- Implemented authentication and authorization models with role-based access control (RBAC) and secure API enforcement across multiple backend services.
- Developed infrastructure-level features and tooling such as pluggable email delivery (SMTP/SendGrid), solution versioning, CLI enhancements, and automated workflow fixes improving system reliability.

Systems Engineer

2019-2024

LZ Technology

- Designed and developed simulation models in Python using Trick for Spacesuit and its corresponding GUI along with a testing apparatus to implement tests for changed GUI variable values and behaviors.
- Implemented CI/CD (Continuous Integration/Continuous Delivery) pipelines using GitLab to automate build, test, and deployment procedures for individual applications.