Qingyang (Annie) Li

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WORK EXPERIENCE

Netflix | *Software Engineer II* May 2025 – Present | Mountain View, CA

Education Developer Paved Road team

Runtime Operation and Deployment Functionality Creation

- Led development of **Gradle** tasks for code operation and deployment mechanism for team's managed runtime platform.
- Designed and created consolidated Gradle tasks with **Java** that combine multi-operations (e.g., git add, git commit, git push, deployment) into a single feature stack push task using **ProcessBuilder**, **streamlining** routine runtime operations.
- Optimized deployment velocity using a **hot reloading** mechanism that monitors runtime configuration files and Gradle build scripts, automatically applying updates or rerunning tasks to reduce reload time and improve developer workflow.
- Improved reload time (the time for a developer's local code changes to be reflected in their feature stack environment) by **17%** and reduced migration rates by **23%**.

Agent-Powered Developer Command Line Interface

- Co-Developed an **AutoGen** Agent–driven **CLI** using **Java** that enables developers to generate and deploy major queries/services of the team's runtime platform, such as GraphQL and gRPC, from natural language prompts.
- Integrated internal **MCP Servers** for service discovery, instance queries, metrics validation, and deployment pipeline automation to auto-resolve endpoints, validate queries, and trigger deployment pipelines.
- Added a **caching** layer for frequently used prompts with **Kafka** to reduce redundant retrievals; Improved response time by **35%**.

Reference App-Based Automated Runtime Validation

- Led a team of 2 for the development of a reference application showcasing major functionalities of team's runtime platform, such as GraphQL, gRPC, and RESTful APIs, using **Java** and **DGS frameworks,** providing an archetype for new adopters.
- Designed and created a reference application-based release pipeline by building the reference app with each release candidate and automating the process with a **CI/CD** workflow using **Spinnaker**, **Jenkins**, **Gradle** tasks, and **YAML** configurations.
- Designed and created 30+ unit and integration tests using **Java** and integrated them into the release pipeline.
- Achieved **400+** forks of reference app within the first month of GA; Reduced deployment time by **55%** and rollbacks by **24%**.

Microsoft | *Software Engineer*

Azure Storage Client IDE team Jan 2024 – May 2025 | Mountain View, CA

- Designed and implemented the migration of VM **disk synchronization methodology** and the instantiation of partition settings for IO device translation layer.
- Built an NVMe emulator in **Rust** as a **caching** mechanism with full state management support.
- Decommissioned a legacy real-time disk synchronization protocol that streamed all changes continuously.
- Introduced a **batch-processing** protocol that flushes cached changes at regular intervals, improving I/O performance by 20% to 10M operations/sec.

Visual Studio Code & .NET SDK team Jan 2023 – Jan 2024 | Redmond, WA

.NET Acquisition for VS Code C# Dev Kit

- Designed and implemented the acquisition of .NET SDK and Runtime for **VS Code C# Dev Kit** using **TypeScript,** collaborating with another developer, where I focused on establishing the download and installation process for users with **Axios**.
- Instantiated the lookup of client-side local metadata to build the query request for Axios to build the connection to corresponding .NET package versions for acquisition, enabling customers to develop C# projects on VSCode and reaching **12M** installs

.NET SDK Package Acquisition & Update Feature Enhancement

- Initiated and led a multi-quarter project to develop the “update-all” subcommand for .NET tool package, the **No.1** most upvoted .NET tool feature on GitHub issue requests; Implemented core functionalities and reviewed community contributions.
- Migrated the .NET tool acquisition mechanism from package recovery to **NuGet** and designed and implemented automatic runtime roll-forward for .NET tool packages using **C#**

Microsoft | ***Software Engineering Intern*** Jun 2022 - Sep 2022 | Redmond, WA

Azure Engr Infrastructure team

- Enhanced the VM's **observability framework** by introducing an error classification and conquering mechanism to reduce the workload of manual troubleshooting using **C#** and **C++**, with a **time-series data storage** mechanism.
- Integrated a **microservice** that featured a repair policy **decision tree** for diagnosis and streamed the output into an external **message queue** for error handling, resulting in an 86% improvement in diagnostic accuracy.
- Created an observability dashboard with **React.js** and **Python** that instantiated a search bar, table columns and tree-view components to visualize test results across different platforms and report on differences between jobs of 40,000 pipeline tests.

Microsoft | ***Explore (SWE + PM) Intern*** Jun 2021 - Sep 2021 | Redmond, WA

Visual Studio IDE team

- Designed and integrated a **full stack** build analysis tool, Build Insight, in Visual Studio using **C++**, **C#** and **XML**.
- Designed a customizable user interface that featured a button connected to a pop-up window within Visual Studio to tailor users' preferences during build analysis runtime.
- Utilized **Azure Kusto**, a **SQL**-like query language to collect telemetry to optimize build processing orders.
- Generated a **20%** user-reported reduction in build times by identifying and addressing build bottlenecks.

Baidu | ***Software Engineer Intern*** Jun 2020 - Oct 2020 | Beijing, China

Baidu Research

- Co-developed a distributed data federation platform Fedcube with **Python** and **MySQL** using **linear** and **logistic regression** and **A/B testing**, resulting in a customer increase of 11% for Baidu Research and 7 partnered research institutions.
- Co-published 2 **research papers** on how Fedcube uses data federation on Baidu AI cloud to provide Covid-19 data from Baidu Search and Map to outside users; Co-authored a **USPaT patent**.

EDUCATION

University of California, Los Angeles | *B.S in Computer Science* | GPA: 3.95/4.0, *Summa Cum Laude* 2019 - 2022

- Relevant coursework: Algorithm and Data Structures, Computer Organization, Operation Systems, Distributed Systems, Machine Learning, Data Management Systems, Computer Architecture, Computer Networks

SKILLS

Languages: Java, C++, C, C#, Python, TypeScript, SQL, JavaScript, Rust; YAML, HTML/CSS, XML, MSBuild

Technologies: GraphQL, gRPC, REST API, Azure Kusto/CosmosDB/ PostgreSQL/Kubernetes, Docker, Apache Kafka /Spark/Pulsar, MongoDB/Hollow, MySQL, Spring Boot/.NET, AWS S3/Dynamo/EC2, Git, Vim, Powershell, Gradle, React.js, React Native, Jenkins, Linux, NuGet