

Nicholas Ng

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Experience

Software Engineer | Roblox

01/2022 - Present

- Drove core reliability fixes for Team Create, a real-time collaborative engine similar to Google Docs, improving reliability **98% to 99.999%** by improving save flow and collaborating with cross-functional teams to optimize C++ networking algorithms.
 - Developed data pipelines to monitor real-time health metrics. **Led cross-functional investigations** with storage and networking teams to resolve root causes of metric regressions.
- Owner of the Game Metadata service, a critical-path system (C#, .NET) managing game names, descriptions, and creator data for the entire platform.
 - Implemented local caching that eliminated hot sharding on remote caches, allowing the service to support surges in traffic of over **ten million requests per second** while reducing infrastructure costs by \$300,000 annually.
- Built a Spark/Airflow data pipeline to operationalize a 'Place Complexity' classification model, enabling strategic optimization for mega-scale worlds.
- Led the **Full Stack implementation** of 'Version Commit Notes', designing the metadata schema and UI to support semantic version control for millions of developers.
- Engineered **critical safety measures** for the permissions system, including the implementation of 17+ age verification checks for age-restricted content.
 - Led the migration of the permissions service from a DynamoDB backend to an internal permissioning system, scaling to serve **millions of requests per second** while adding support for new complex permission types.
- **Mentored interns and new hires**, guiding an intern through a full project lifecycle that resulted in a successful feature launch and a return offer, while conducting 20+ technical interviews to help scale the engineering organization.

Software Engineer Intern | Thumbtack

06/2021 - 08/2021

- End-to-End implementation of a 'Smart Recovery' booking flow (Go, GraphQL, React) to automatically route requests to alternative professionals if a user's primary choice was unavailable.
 - Launched via A/B testing, driving a **7.2% increase in revenue** per visitor.
- Built a daily run PHP script that identified customers eligible for an upsell and sent custom emails and push notifications.

Head Teaching Assistant | UC Berkeley

10/2019 - 12/2021

- Managed a teaching staff of 10 and developed a curriculum serving 300+ students.
- Promoted from Tutor to Head Teaching Assistant

Education

UC Berkeley

B.A. in Computer Science

2018 - 2021

Skills

Languages: C#, Python, SQL, C++, Java, Go, Lua

Frameworks and Technologies: .NET, gRPC, AWS (DynamoDB, SQS), REST APIs, React