

WINSTON TRINH

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EDUCATION

University of Southern California, Viterbi School of Engineering Bachelor of Science - Computer Science

Los Angeles, CA
December 2024

Coursework: Software Engineering, Operating Systems, Algorithms, Data Structures, Artificial Intelligence, Probability, Discrete Mathematics, Professional C++, Internetworking, Embedded Systems, iOS App Development, Programming GUI's.

EXPERIENCE

AT&T Network Engineer

Atlanta, GA
July 2025-Present

- Delivered **20+ production releases** of an internal Angular platform managing **\$4.5B+ in annual network lease payments**, improving operational efficiency and reliability across the Mobility Tower and Roaming systems.
- Engineered Python-based **automated testing** workflows enabling **larger releases** for a wider range of stakeholder groups.
- Prototyped and designed a **Jira analytics dashboard** tracking developer velocity, defect trends, and release metrics—providing new visibility into productivity and informing data-driven process improvements.
- Support **performance analyses** to **optimize application scalability** and **reduce operational costs** across AT&T's network systems.

USC Sol Price School of Public Policy Research Assistant

Los Angeles, CA
July 2024-December 2024

- Processed and analyzed large-scale datasets exceeding 100 GB using Python and Polars to reduce data processing time.
- Developed and implemented predictive models using scikit-learn and linearmodels to support nonprofit budget forecasting analysis.

Sandlines Freelance Software Developer

Remote
August 2023-July 2024

- Developing a full-stack React Native app for candidate-voter communication that amplifies voter impact in US elections.
- Built a full-stack landing page using React.js to **increase user engagement by 30%** during the beta testing phase.
- Implemented end-to-end database management by connecting landing pages to Firebase Backend through Firestore API, which supports over 100 active users.
- Collaborated with two other developers using Agile framework (Scrum) and Jira ticketing to ensure seamless synchronization between website and mobile app.

CS@SC Teaching Assistant for USC Viterbi School of Engineering

Los Angeles, CA
June 2022-July 2024

- Lead **weekly classes of up to 15 students** spanning K-12th grade, teaching various computer science topics ranging from Scratch to Java/Python.
- Design **lesson plans for 200+ students** with interactive programming problems and homework to support practical learning.
- Advise in development of Game Design using Unity with C# and Level 1 Python by recording 3 educational videos.

PROJECTS

Supabase Rate Limiting System

Beaverton, OR
March 2025

- PostgreSQL, PL/pgSQL, Bash, Supabase*
- Built a custom rate limiting backend using Supabase and PL/pgSQL, enabling precise control over API usage across different routes and users.
 - Built RPC functions to enforce dynamic request quotas and manage system-level traffic with minimal latency.
 - Automated testing** with a **Bash script simulating real-time API traffic**, using realistic seed data to validate behavior under edge cases and production-like conditions.

Course Schedule Checker

Beaverton, OR
February 2025

- Python, AWS Lambda, SNS, DynamoDB, IAM, cron*
- Reverse-engineered UCLA's course scheduling site by analyzing browser network activity to replicate undocumented API requests.
 - Deployed cURL-based polling logic in AWS Lambda, storing results in DynamoDB and sending seat availability alerts via SNS alerts.

SKILLS

Languages: Python, Bash, C/C++, Java, SQL, TypeScript, JavaScript, HTML/CSS, Swift, Dart.

Frameworks: Cucumber, Playwright, Selenium, React.js, Next.js, Spring Boot, Flask, Flutter, Tailwind.

Tools: Git, Docker, AWS EC2, AWS SNS, Linux, Bash, GitHub Actions (CI/CD), Jira, Postman, Maven, Supabase, Firebase.

Databases: MySQL Workbench, PostgreSQL, JQL, DynamoDB, Firestore.

Concepts: Agile/Scrum, SAFe Agile, REST APIs, Algorithms, System Design.