Alston Nguyen

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Education

Georgia Institute of Technology, Remote/Async University of Washington, Seattle, WA Cal Poly San Luis Obispo, San Luis Obispo, CA M.S. Computer ScienceSep 2024 - Exp. 2026M.Eng. Systems & Industrial EngSep 2020 - Jun 2022B.S. Industrial EngineeringSep 2011 - Jun 2016

EXPERIENCE

Founding Engineer

 $Stealth \ Start \ Up$

- Independently developed a full-featured calendar and scheduling platform with Flutter (Web + Mobile) and **Supabase (PostgreSQL, Auth)**, supporting Google/Email login, recurring events, multi-calendar filtering, and responsive UI across devices
- Implemented CI/CD pipelines using GitHub Actions for automatic builds, tests, and deploys to **modern web** hosting platforms and iOS emulator environments
- Built reusable unit and widget tests with high coverage; integrated real-time **PostgreSQL sync via Supabase**, robust data persistence, and efficient state management

Software Engineer

KafkaTrace - OS Labs

- Created a developer dashboard in React for backend engineers that increases developer productivity by consolidating monitoring tools such as Prometheus, Zipkin, and Jaeger into one view
- Created an NPM package (kafkatrace) incorporating OpenTelemetry instrumentation libraries to simplify the instrumentation of Kafka clusters by 93% (from 60+ lines of code to 3)
- Utilized NextAuth.js for open authentication, enhancing user access options and bolstering security
- Wrote unit and integration tests using Jest

Software Engineer / Product Manager

LeanTaaS Inc.

- Served data to the frontend to enable chemotherapy centers to manage appointments in real-time, using NextGen Mirth to build, test, and deploy message data pipelines
- Analyzed and filtered hospital-provided data using Python, reducing chair wait times by up to 50%
- Created a DevOps script for automating daily ETL of EHR data to Amazon S3 to view on Tableau, increasing patient access by 150%, leading to earnings of up to \$20k/chair annually
- Supported real-time HL7 FHIR integration of PHI data from various EHR systems across 1200+ hospitals, improving interoperability and care coordination

Industrial Engineer

The Boeing Company

- $\bullet\,$ Employed SQL queries to achieve a 54% reduction in defects via root cause analysis within an extensive parts database
- Created Tableau KPI dashboard improving performance of 6-axis robotic arms, increasing OEE by 17% and reducing downtime by 34%

Projects

Autonomous Racing AI | Unity, C#, Fuzzy Logic, ML-Agents

- Engineered an AI agent using fuzzy logic and rule-based inference for real-time throttle and steering control in a simulated racing environment; achieved 91%+ test coverage with 40 km/h average speed on complex tracks
- Integrated Unity ML-Agents to experiment with neural network-based driving policies, comparing learned behaviors with hand-crafted fuzzy control for performance benchmarking

TECHNICAL SKILLS

Languages: JavaScript (ES6+), TypeScript, Python, SQL, NoSQL, Dart, C#, HTML/CSS
Frontend: React, Next.js, Redux, Flutter, Material-UI
Backend: Node.js, Express, Apache Kafka, Docker, NextGen Mirth, Flask
DevOps / Tools: Git, Docker, Amazon S3, Tableau, VS Code, IntelliJ, PyCharm
Testing: Jest
Data / Integration: HL7 FHIR, OpenTelemetry, PostgreSQL, pandas, NumPy, Matplotlib

May 2023 – Sept. 2024

Oct. 2024 – Present

Remote

Remote

Remote

May $2021-Aug.\ 2022$

Sept. 2018 – May 2021

Everett, WA