

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 Science Sep 2024 – Exp. 2026
M.Eng. Systems & Industrial Eng Sep 2020 – Jun 2022
B.S. Industrial Engineering Sep 2011 – Jun 2016

EXPERIENCE

Software Engineer

May 2023 – Present

KafkaTrace - OS Labs

Remote

- 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

May 2021 – Aug 2022

LeanTaaS Inc.

Remote

- 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

Sept. 2018 – May 2021

The Boeing Company

Everett, WA

- 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

Calico Calendar | *Flutter, Firebase, Firestore, GitHub Actions*

- Independently developed a full-featured calendar and scheduling platform with Flutter (Web + Mobile) and Firebase (Firestore, 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 Firebase Hosting and iOS emulator environments
- Built reusable unit and widget tests with high coverage; integrated real-time Firestore sync, data persistence, and robust state management

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, 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