aaron buxbaum

Boston, MA · me@aaronbuxbaum.com · in/aaronbuxbaum · aaronbuxbaum.com

SUMMARY

Staff Software Engineer with 10 years of expertise in leading technical teams, building highly Agile team culture, and developing full-stack architectures.

Proven track record of leading, building, and deploying high-performance software systems, including an IPO and company acquisition. Expert on the frontend (Typescript, Javascript, React) and with cloud technologies, coupled with backend experience (Python, Go) and an education in machine learning. Strong advocate of Agile methodologies, including continuous delivery, rapid development, and an emphasis on automated testing.

Interested in hard problems and complex projects within fast-paced and iterative environments.

EXPERIENCE

Staff Software Engineer
Nuro   2022 – Present, Mountain View, CA

Nuro builds autonomous vehicles for last-mile delivery. There are no seats, pedals, or mirrors on the vehicle.

· Lead frontend engineering across the entire company, establishing best practices and shared infrastructure.
· Managed the Web Guild and Frontend Excellence teams for determining technical direction and building out frontend infrastructure.
· Served as lead developer for Guardian (remote manual driving), Mission Control (map visualizations), and route simulation.
· Built out infrastructure for all of internal tooling, including CI, deployment pipelines, and resource utilizations. Improved build time performance by 500%.
· Introduced and implemented the design system and unified patterns, enabling code reuse and reducing engineering time by 30%.
· Achieved highest possible individual contributor role.

Tech Lead & Architect
Detect   2020 – 2022, Guilford, CT

The world's first rapid, accurate, affordable nucleic acid COVID-19 test for the home.

· Lead development for a website and React Native companion app to a nucleic-acid test for COVID-19 (detect.com).
· Brought product to a successful Emergency Use Authorization (EUA) through FDA and subsequent product launch -- over 1 million products sold.
· Mentored and lead a team of 9 engineers spread across web, mobile, and backend teams.
· Built certification architecture and apps that allow for secure and private verification of virus test and immunization statuses.

Staff Software Engineer
Quantum-Si   2019 – 2022, Guilford, CT

Quantum-Si developers a single molecule detection biotech solution to decode the molecules of life, particularly single-molecule protein sequencing. QSI went public via a $1.5B IPO in 2021.

· As Engineer #2, built full-stack cloud infrastructure from the ground-up using React, Relay, GraphQL, Node, Python, Flask, and Postgres over AWS.
· Built the Executor system, a platform that enables scientists to run complex CWL workflows on shared infrastructure without exposing data.
· Built SQOPE, a platform for potential customers to run on-demand analytical simulations to determine if the product fits user needs.
· Productionalized the stack to begin selling the product to users utilizing Kubernetes and CloudFormation via AWS CDK.
· Brought company to a successful IPO at a $1.5B valuation (NASDAQ: QSI).
· Served as lead engineer for a team of 5 full-stack engineers.
· Contributor to "Real-time dynamic single-molecule protein sequencing on an integrated semiconductor device": an academic paper published in Science.

Tech Lead

Jet.com   **2017 - 2019, Hoboken, NJ**

Jet.com was an e-commerce platform designed around the knapsack problem -- the more items that could fit in a single box, the bigger your discount. Jet was acquired by Walmart for $3.3B and dissolved into Walmart Labs in 2019.

· Lead effort to completely rewrite entire website codebase (12K files, 1.1M lines of code) into a modern React/Redux architecture.

· Established best practices and workflow, dramatically increasing overall code quality, team velocity, and performance. Time-to-usable metrics improved from the worst to the best of all major e-commerce websites, including Walmart and Amazon.

· Lead Jet 2.0: a complete redesign to more closely align with target demographics expectations; timed for release along a $20M ad campaign.

· Managed, mentored, and directed technology choices for a team of 25 front-end engineers.

· Boiled down product specifications and tech roadmap into actionable and well-defined Agile epics, sprints, and stories.

UX Engineer, Google Maps

Google   **2016 - 2017, New York, NY**

· Lead team effort to rewrite and refactor codebase into best practices with AngularJS.

· Developed interfaces that explored features and benefits of the program as the active user base scaled more than 1000% to 50M users.

· Wrote updated onboarding system, resulting in an over 600% increased rate of new user registrations.

· Built meet-up system that allows users to create events centered around improving the Maps experience. This system became the centerpiece of Local Guides, and eventually became the current Local Guides Connect program.

Software Engineer

FactSet Research Systems   **2014 - 2015, Norwalk, CT**

· Wrote all front-end code for the new Risk in Portfolio Analytics, while maintaining strict backwards compatibility.

· Redesigned the Risk user experience to more closely match modern-day portfolio manager expectations.

· Built Thief, a company-wide set of Angular widgets for use in all next-generation applications.

EDUCATION

Master of Science in Analytics

Georgia Institute of Technology · Atlanta, GA · 2023 · 3.9

Master of Science in Computer Science

Georgia Institute of Technology · Atlanta, GA · 2018 · 4.0

Bachelor of Science in Computer Science

University of Massachusetts-Amherst · Amherst, MA · 2013 · 3.3

CERTIFICATIONS

Six Sigma Black Belt

Georgia Institute of Technology · 2020

Social/Behavioral Research Investigators and Key Personnel (Human Research)

CITI Program · 2018

PUBLICATIONS

Real-time dynamic single-molecule protein sequencing on an integrated semiconductor device

Science · January 2022

A Replication of "Learning to Predict by the Methods of Temporal Differences" (Sutton, 1988)

Georgia Institute of Technology · June 2017