

Staff/Lead FrontEnd Engineer with 20 years of UX, Technical, and Product experience.

Expert with **React, TypeScript/Javascript, Python/Django, AWS, C#/.NET, Java, PostgreSQL, Desktop applications, Graphics, Animations, Charts, Visualization, Design Systems/Component Libraries, Looker/LookML, JIRA, Confluence, MySql, RDS, S3**

Comfortable with **Kubernetes/Docker, Figma, Cypress, GCP, Github Actions, Argo CD, CircleCI, Datadog, Honeycomb, Tableau**

I **LOVE mission-driven** companies, let's build a product that makes a **positive impact** on society and the world. I also **donate** my skills to my community.

Put me in a **Leadership** role with **org-wide** responsibilities.

Education

- Masters of Computer Science - University of Illinois at Urbana-Champaign, 2006
- Bachelor of Science in Math and Computer Science - University of Illinois at Urbana-Champaign, 2004
 - Thesis on implementing automated refactorings in C and preprocessor macros.

Awards

- First place for undergraduate research with Win2KO, a vision based boxing game.
- Received the "Innovation Award" for championing ZS's knowledge base.

Community

- Managed 2 volunteers and built a [web-app](#) to help residents find food assistance programs.

Frontend Lead for All Of Us – Color – San Francisco, CA – 01/2022 to Present

[Color](#) is a genetics testing company. I am the Frontend Lead for the All of Us (AoU) projects with the National Institutes of Health (NIH). AoU's goal is to collect & share over one million genetic test results from a diverse set of participants in order to accelerate research into precision care.

As the Frontend Lead, I have coordinated my team's development and use of Color's Component Library and we have contributed to the evolution of the Design System.

- Delivered frontend for two AoU apps and met an aggressive timeline.
- Mentored other developers in React, TypeScript and accessibility best-practices which allowed Color to pass NIH's accessibility, security and usability audits.
- Led team to deliver a new identity provider for NIH, a company-level OKR.
- Eliminated PDF visual regressions with CI visual regression tooling
- Created our technical interview questions for our UX/FrontEnd team

Engineer Lead for Reporting – Invitae – San Francisco, CA - 01/2019 to 01/2022

[Inviate](#) is a genetics testing company offering clinical grade sequencing and reports to its customers. Reporting via their proprietary Clinical Decision tooling is one of their major differentiating factors and large value add for their customers.

As the Engineer Lead, I have guided the platformization of Invitae's Clinical Design tooling, oftentimes resolving conflicting technical requirements.

- Tech lead for 20+ Engineers; launched RNA and Somatic reporting products.
- Championed a reorg to focus on Competency Models, Tech Owners, and Tech Debt.
- Managed RNA team, shipped 4 months early; increased our yearly volume by 100K tests.
- Coached four underperforming reports to a level of excellence.
- Mentored two manual testers into jr BE engineers and grew the team's headcount.
- Lead team to execute critical upgrades: Python2 -> 3, JS->TypeScript.

Lead Software Engineer – Nuna Inc – San Francisco, CA – 01/2017 to 01/2019

[Nuna](#) is a Healthcare data warehouse and analytics company that is focused on building solutions for payers to help them implement Value Based Care. Their tools lowered the barrier for customers to create ad-hoc reports and gain valuable insights from their data.

As Tech Lead, I built a world-class ad-hoc reporting system that allowed for nearly transactional processing (OLTP) while using a BI system built for analytical queries (OLAP).

- Technical Lead: User-defined Cohorts. Year-long project, delivered on-time. Managed scope, architecture, planning, discovered a novel solution with Django & Looker, and mentored junior developers
- Project Lead: Automated Dashboard and Data QA tool. Saved 3+ months of manual testing over one year of use. Doubled team's release velocity while reducing regressions shipped with Q1 plans to expand include all products.
- Technical Lead: Nuna.com relaunch and rebranding - provided technical oversight for external consulting firms. Architected a new site with Wordpress, Medium, and custom templates, enabling non-Engineers to author content.

Frontend Lead – HealthTap – Palo Alto, CA – 12/2015 - 01/2017

[HealthTap](#) is a telemedicine and medical knowledge base company.

- Eliminated missed consultations (HealthTap's core feature) by improving notification reliability and UX.
- Improved video consult quality to HD levels through infrastructure optimization, upgrades, and client-side fixes.
- Squashed daily regressions by championing testing via Selenium, Karma & Jasmine.
- Reduced dev cycles 68% by factoring our 600K+ LOC Javascript code base to S.O.L.I.D. architecture & testing.
- Prevented HIPAA violations by creating a monthly security audit process and notifications for permission changes.
- Reduced onboarding to a few hours through tutorials & setup scripts.

Senior Software Engineer – Index – San Francisco, CA - 08/2014 - 12/2015

Index was a point of sale and processing company that created loyalty and marketing campaigns for their retail customers.

- Eliminated all issues in our deployments, service discovery, and health monitoring system.

- Reduced AWS costs through selective instance sizing based on load and performance.
- Reduced issue resolution time by developing an AngularJS logging and alerting web-app.
- Transitioned marketing website to AngularJS which lowered time for future updates by several hours.
- Reduced implementation timeframe for our partner by creating an app emulator in JavaFX.

Senior Software Engineer – TradeScape – San Mateo, CA – 11/2013 to 08/2014

TradeScape was a data processing company with customers in the entertainment industry who used our products to calculate their royalties.

- Created C# RESTful query layer, refactored web-app to load async (nearly SPA), and improved app responsiveness.
- Improved database stability by migrating from MySQL to MariaDB, repartitioning datatables, and using ADO.NET.
- Improved C# data-app performance over 200% by parallelizing processes and using object-caching to avoid CG.
- Introduced TDD, code-coverage and e2e testing using NCover (C#) & Selenium.
- Implemented Agile and Scrum project management and developed quarterly project plans.

Director of Software Development – Centrad Healthcare – Naperville, IL - 08/2011 - 11/2013

Centrad Healthcare was a durable medical goods supplier and third-party biller. Their custom built ERP and aggressive vendor contracts allowed them to win nearly all competitive bidding areas.

- Liberated data from a legacy DBase2 system via Talent ETL jobs, allowing us to fully migrate the datastore; the migration tripled performance and reduced downtime during deployments by nearly 50%.
- Developed workflows in C# between two ERPs to eliminate the need for duplicate work.
- Championed TDD and metric driven processes which resulted in predictable project timelines and stable software releases.
- Established QC and UAT processes which eliminated all production rollbacks..
- Doubled user-satisfaction by incorporating user feedback into product development cycle.
- Cut field-rep visit time by 20% by creating a tablet C# .NET WPF annotation workflow app.
- Completed X12 5010 upgrade and implemented 835/837, 810 and 850 formats.

Senior Software Developer – ZS Associates – Evanston, IL - 09/2006 - 08/2011

[ZS Associates](#) is a consulting firm that focuses primarily on sales force size and market research in the Pharmaceuticals & Biotech space. Their custom tools give them a competitive edge.

- Received the “Innovation Award” for being the top contributor to ZS’s knowledge base.
- Implemented 10+ customized launches of ZS’s field rep survey tool.
- Nearly eliminated projects by developing a project code validation library in C#

Software Engineer – ACES @ UIUC – Urbana, IL - 08/2004 - 04/2006

The Agricultural, Consumer and Environmental Sciences (ACES) department at Urbana-Champaign has a research and development department which builds Geographic Information System (GIS) applications to visualize location-based information, such as a map.

- Developed three C# ASP .NET ESRI-GIS apps for the Illinois Department of Education.
- Refactored an existing code base of over 100K lines of JavaScript into organized SOLID structure.