

Justin Sawyer *(he/him)*

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SUMMARY

Full-stack engineer with 19 years shipping user-facing edtech products, with deep expertise in TypeScript, modern SPA frameworks, and AI-enabled feature design. Track record of taking products from ambiguous concept to scaled production, including a college admissions platform launched to 53 universities and an LLM-powered form builder that earned company-wide buy-in. Drawn to small teams building AI tools that augment human expertise rather than replace it.

CORE COMPETENCIES

TypeScript | React | Angular | RxJS | NgRx | Tailwind | AI/LLM Integration | RAG + Vector Search | Component Library Architecture | WCAG Accessibility | API Design | Frontend Performance

PROFESSIONAL EXPERIENCE

Senior Software Engineer | CollegeNET, Inc. | Portland, OR Aug 2022 to Dec 2025
Edtech SaaS company serving universities with admissions, CRM, and form-building platforms.

- Led 4-engineer Eazel form builder team through monthly release cycles, owning sprint planning, architecture decisions, and mentorship while shipping production features
- Built AI form generation prototype from idea to demo using LLMs, RAG with vector search, and human-in-the-loop refinement; presented to executive leadership and company-wide, securing buy-in for production rollout
- Created AI-powered PDF-to-form conversion that automated workflows previously requiring days of manual developer work
- Migrated payments UI from AngularJS to Angular with unit and Playwright e2e coverage, reducing production incidents from monthly to near zero
- Established Playwright e2e testing practices across the Services team through hands-on mentorship of QA engineers, creating baseline patterns the team continues to extend

Software Engineer | CollegeNET, Inc. | Portland, OR Feb 2011 to Aug 2022

- Architected Fixie form platform from inception, scaling to 10M API requests per day at peak across CRM, Coalition, and events products
- Led UI architecture for Coalition App, a new college admissions platform built from scratch as an alternative to the Common App; shipped on a one-year timeline to 53 universities, scaling to 150
- Migrated Standout.com video interview platform from AngularJS to Angular using a dual-boot architecture, enabling incremental modernization without breaking active user workflows
- Built CRM Email Campaign Conversation Manager handling 1000+ parallel conversations per email blast using event-driven architecture
- Created reusable form builder and engine NPM libraries unifying form experiences across four product lines

Web Developer | CollegeNET, Inc. | Portland, OR Sep 2006 to Feb 2011

- Built custom admissions forms for 50+ universities including University of Michigan, working directly with institution admins on production rollouts
- Developed reusable JavaScript components that established product-wide UI patterns ahead of the SPA era

SELECTED PROJECTS

Parking Lot Detector | Parking Reform Network (volunteer) 2026

- Built full-stack React, Python, and PostGIS app detecting parking lots via custom-trained AI computer vision model on satellite imagery, feeding data to public policy advocacy
- Designed human-in-the-loop UI for data refinement with realtime updates via RabbitMQ streams; CI/CD auto-deployment to DigitalOcean

VoiceBox DJ | Personal Project

- Created Angular, Java, and Couchbase mobile app solving fair queue management for private-room karaoke; deployed to Heroku
- Rebuilt 2026 stack on AWS (ECS/EC2) with Terraform IaC; porting UI to React and developing realtime AI recommendation engine combining room queue, user history, and Spotify API metrics

EDUCATION

Bachelor of Science in Information Systems | University of Texas at Arlington