

Employment

Home Depot - Senior Software Engineer: Store Systems (Spring, React, GCP, Kubernetes) (Oct 2023 – Present)

- Reputed innovator of the department.
 - **Resolved department-wide back-end blocker** by fixing local monorepo Maven build and sync logic.
 - **Accelerated dev productivity by 20%** via local dev Bash/Postman scripts and internal websites for auth token generation, health monitoring, etc.
 - Introduced WSL configuration to the department, paving the way for significantly enhanced daily developer experience.
- Created new “HD Pass” loyalty system for both point-of-sale and self-checkout.
 - Upon customer login, HD Pass auto-scans/applies coupons, store credit, and their saved payment.
 - Enhanced Java POS business logic, customer-lookup and payment (Spring Boot) endpoint logic, React/Redux/WebSocket communication, Kubernetes/Google Cloud deployments and pipelines, Mixpanel/PostHog analytics, and Cypress end-to-end tests.
- **Primary mentor for onboarding all new hires** due to my quick learning and deep understanding of the entire system.

Nextdoor - Lead Front-end Architect (Next.js, TypeScript, React, Redux, AWS, Bash, Docker) (June 2021 – Sept 2022)

- Served at the intersection between front-end, back-end, pipelines, Bash/dev env, and Docker configuration, flowing wherever needed.
- **Founded isomorphic SSR/CSR codebase** for entire site, accelerating build speed, client performance, and pipeline parallelization.
 - **Reduced local dev resource consumption by 70%** via novel dev-server to replace cumbersome Docker/Python/Webpack combo, improving dev experience and productivity across the entire company.
 - Unified state and file structure, aggregating common needs for many departments into a single source of truth.
 - **Solved org-wide unit-test issues plaguing devs for years** in a matter of weeks via customizable util functions for async logic, user interactions, redirects, and mocks.
- **Mediated org’s lack of QA** by building a custom system utilizing Docker for running the prod environment locally with your own code injected, allowing sensitive logic to be verified before CD deployment.
- **Converted entire site from Flow to TypeScript**, consisting of millions of lines of code, via homebrewed AST parser util.
- **Constructed 5-year roadmap** to improve app performance and developer experience.
 - Executed complete website analysis to discover and fix the largest CI/CD bottlenecks.
 - Laid out instructions/metrics for transitioning from a monolithic structure to micro-frontends.
 - Split shared component library to separate repo, published to AWS private registry, installed as dep in parents, and added local dev utils for auto-auth renewals.

E-Trade - Senior Full-Stack Software Engineer (React/JavaScript, Spring/Java, Oracle/SQL) (July 2018 – June 2021)

- **Mediated company-wide network issues** in personal time via novel MockRequests library (see Open-source below).
 - **Eliminated largest front-end blocker** in the company: server rolls occurring twice per week that disable all API endpoints.
 - Improved developer productivity by 40%.
 - Included in company-wide React/SCSS design-language library/boilerplate due to its efficiency.
- Built 2 platforms for creating investment plans (first year netted **\$2.5 million, +37% purchases, +15% new customers**).
 - **Boosted client performance by 50%** through restructuring React/MobX global state management.
 - Enhanced server scalability by optimizing data aggregation logic and introducing multithreading.
 - Leveraged design pattern acumen to simplify client-server-DB communication by restructuring Spring DAOs, DTOs, & logic.
- **Augmented Java endpoint performance** by introducing multithreading.
 - Utilized asynchronous Spring Boot logic to streamline network/DB requests.
 - Added custom utilities to improve handling of async functionality in parent code.
- Fostered a culture of learning and growth in the organization’s developer community.
 - **Primary mentor for junior devs**, providing lessons for teaching git, libraries, and the development stack.
 - Served as a panel leader and contact point for the intern class of summer 2019.
 - **Optimized team productivity** by engineering scripts for automating tasks, including Jira ticket autocompletion in git, using local text editors/IDEs to code on remote servers, remote file exchanges, cookie extraction/refresh during development, etc.
 - **Inspired deeper collaboration** across various Slack channels, leading to improvements in coding practices.

E-Trade - Android Engineer (Java, Internship) <Google Play App> (June – Aug. 2017)

- Pioneered E-Trade’s first Android Edge panel widget that displayed a user’s watch lists and respective stock data.
- Orchestrated the state management, authentication, and caching systems; Coordinated UI/UX design and testing.
- Facilitated a seamless MVP hand-off to maintainers by writing guides, documentation, and descriptive git commit messages.

Open-source

MockRequests (JavaScript) <<https://npmjs.com/package/mock-requests>> (Sept. 2019)

- Launched the first lightweight, yet powerful, mocking library that **doesn’t require changing source code or running local servers**.
- **Boasts features other solutions seldom support:** Simple one-step configuration that automatically works throughout the entire application, language/library/environment agnostic, exceptionally performant, toggling mocks via CLI.

Projects

Anime Atsume (React/TypeScript, Spring Boot/Java) <<https://github.com/D-Pow/anime-atsume>> (June – July 2020)

- Unique anime search engine providing the quickest possible path from searching titles to watching episodes, unlike most sites.
- Full-stack: **PWA SPA React** front-end, **Spring Boot** back-end, **Docker** container, **AWS** host, **GitHub Actions** CI/CD.

Picture Place (React Native, Ionic, PWA, TypeScript) (June 2022 – Present)

- Mobile app to automatically scan images taken of restaurants/menus, classify them with AI to add tags (cuisine, price, atmosphere, quality, etc.), and add them to an interactive map of places you want to visit.
- Written as both a **native app** and **PWA** for cross-platform usability.

Research – Atoms of Confusion (C, PHP, HTML/CSS) <<https://atomsofconfusion.com>> (Aug. 2016 – May 2018)

- Determined code patterns that are objectively confusing, with implications for improving design principles and specifications.

Education

NYU Tandon School of Engineering – GPA: 3.8/4.0

Master of Science in Computer Science (May 2018) Brooklyn, NY

New College of Florida, the State’s Honors College

Bachelor of Arts in Chemistry (May 2016) Sarasota, FL

Skills

Languages

JavaScript/TypeScript, Java, HTML, SCSS, Python, SQL, PHP, LaTeX.

Technology

React, Spring Boot, Git, Redux Toolkit, Next.js, MobX, Webpack, Jest, JUnit, Gradle, Maven, Linux, Bash, Regex, Docker, Agile (Scrum), GitHub, BitBucket, Jira, CI/CD (GH Actions, CircleCI, Jenkins), AWS, GCP, Heroku, Automation Testing.

Additional Relevant Activities

Eagle Scout (2011): Highest rank, top 2% of all Boy Scouts.

Cyber Security Club (Sept. 2016 – May 2017).

NYU Healthcare Hackathon Winner (Nov. 2016).

Japanese (2019 – Present): Approaching N5 fluency.