

Employment

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

- **Introduced WSL configuration to department** for enhanced dev experience for Windows users.
 - **Reduced dev effort for local utilities** via aggregation and conversion of common Postman, zip file, and batch processes into Bash scripts for easy execution.
 - Added configs, scripts, and .profile logic to the onboarding docs for current and future devs to reference.
- **Added HD Wallet/Pass** features for both point-of-sale and self-checkout.
 - Allowed applicable customers to log in and use their saved payment information.
 - While still a WIP, this included the back-end wiring for logging in as well as the front-end displays for executing HD Pass payments.
- Improved customer-lookup functionality, WebSocket communication, Mixpanel event logging, and Cypress end-to-end tests.

Nextdoor - Lead Front-end Architect (React, TypeScript, Flow, RTK, 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 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 onboarding all new hires**, including sessions for teaching git, libraries, and the development stack.
 - **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.
 - **Served as a panel leader** and contact point for the intern class of summer 2019.
 - **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	New College of Florida, the State's Honors College
<u>Master of Science in Computer Science</u> (May 2018) Brooklyn, NY	<u>Bachelor of Arts in Chemistry</u> (May 2016) Sarasota, FL

Skills

Languages

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

Technology

React, Spring Boot, Git, RTK, MobX, Webpack, Jest, JUnit, Gradle, Maven, Linux, Bash, Regex, Docker, Oracle DB, 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.