

## Employment

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Nextdoor - Lead Front-end Architect (React, TypeScript, Flow, RTK, AWS, Bash, Docker) (June 2021 – Sept 2022)

- **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.
- **Converted entire site from Flow to TypeScript**, consisting of millions of lines of code via homebrewed AST parser util.
- **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.
- **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.
- Developed a dashboard for analyzing internal systems before markets open (July – Dec 2018).
  - **Designed and spearheaded a novel Python architecture** to enhance data flow/maintainability, and reduce technical debt.
- 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

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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

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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

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**NYU Tandon School of Engineering** – GPA: 3.8/4.0

**New College of Florida, the State's Honors College**

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

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

## Skills

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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

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

NYU Healthcare Hackathon Winner (Nov. 2016).

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

Japanese (2019 – Present): Approaching N5 fluency.