Patrick Du

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Skills

Languages: JavaScript/TypeScript, Python, Ruby, SQL, C#, HTML/CSS
Frameworks & Libraries: React, Node, Jest, Storybook, Ruby on Rails, ASP.NET
Infrastructure & Tools: Docker, Git, PostgreSQL, GraphQL, MongoDB, Kibana,

Experience

Software Engineer (Contract) | Carta
Sept 2021 – Present • San Francisco, CA (Remote)

Software Engineer Intern | Carta
May – Aug 2021 • San Francisco, CA (Remote)

- Architected and led the end to end development of a distributions tracking feature facing **55+** limited liability companies
- Implemented an extensible CSV parser in React with validation and data cleansing to enable large-scale data set imports, accelerating the customer onboarding process by **2+** minutes per interest holder
- Migrated **25+** components from Flow to TypeScript, backfilled missing unit tests, and built Storybook stories, as part of a technical debt reduction initiative following the monolithic decomposition to a micro frontend

Software Developer Intern | D2L
Jan – Apr 2021 • Kitchener, ON (Remote)

- Developed a configurable suite of Node scripts to automate bulk creation and deletion of **5+** database entities for manual regression tests, shortening setup and cleanup time by **10+** minutes
- Built Kibana dashboards to identify bottleneck API operations across **5** AWS regions by conducting performance testing on message processing and throughput rates between RabbitMQ and Amazon SQS

Software Engineer Intern | ApplyBoard
May – Sept 2020 • Kitchener, ON (Remote)

- Built a web app using React and Ruby on Rails to verify that student records meet admission requirements, reducing student application pushbacks by nearly **80%**
- Leveraged event debouncing across **10+** input components by implementing a memoized hook in React to eliminate expensive network requests, reducing unnecessary DOM re-renders
- Led the research and integration of ESLint and Prettier in **3** repositories to enforce code consistency amongst **50+** engineers

Web Developer Intern | FGF Brands
Jan – Apr 2019 • Toronto, ON

- Constructed a component-based UI library with HTML/CSS and JavaScript, adopted by **30+** engineers for internal tools development

Leadership

Project Developer | UW Blueprint
Jan 2020 – May 2021 • Waterloo, ON

- Built a Shopify storefront using React to preserve Raising the Roof's annual homelessness campaign during the COVID-19 pandemic, impacting **200+** community agencies across Canada

Projects

Serenity | React, Node (Express), MongoDB, Passport.js
Sept 2019 – Present

- A social wellness web platform that assesses mental well-being through mood tracking and data visualization patterns
- Implemented a REST API with Node (Express) to support CRUD operations and JWT-based authentication

Education

University of Waterloo | Honours Kinesiology (B.Sc.) with Computing Option | Dean's Honours List
Sept 2017 - May 2022

- Relevant Courses: Computer Science I & II, Data Types & Structures, Human-Computer Interaction, Databases