Patrick Du

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Skills

Languages:	JavaScript, Ruby, Python, SQL, GraphQL, TypeScript, HTML/CSS
Frameworks & Libraries:	React, Node (Express), Ruby on Rails, ASP.NET MVC
Cloud and Tools:	Git, MongoDB, PostgreSQL, Docker, RSpec, JIRA, Figma

Experience

Software Engineer // ApplyBoard
May – Sept 2020 • Kitchener, ON

- Developed complex data table to handle critical inefficiencies in existing requirement mapping system including multi-level entity mapping and multi-mapping per entity features reducing student application pushbacks by roughly 80%
- Wrote and tested several REST API endpoints using Ruby on Rails & RSpec to handle CRUD operations of entity requirement mappings
- Leveraged event debouncing across 10+ filters components by implementing a custom-built memoized hook in React to optimize expensive network requests and in turn, reduce unnecessary DOM re-renders
- Led the research and execution of integrating ESLint into 3 repositories to enforce code consistency amongst 50+ engineers

Software Developer // Oculys Health Informatics
Sept – Dec 2019 • Waterloo, ON

- Developed C# console that integrates JIRA issue logs with Harvest timesheets automating a weekly 30 minute time-log process
- Automated internal support team tasks using ASP.NET MVC in a service-oriented architecture by implementing a location service within the client UI eliminating patient flow bottlenecks
- Refactored 1500+ lines of production C# into real-time patient activity tracking dashboards used by 10+ hospitals

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

- Constructed component-based UI library with HTML/CSS and JavaScript serving as a style guide for internal tools development to improve production speed and handle responsive web design
- Built progressive web app with offline support and push notifications used to streamline manufacturing team processes such as inventory checks and plant issue reports

Leadership

Mentor // Tech+ UW
Sept 2020 – Present • Waterloo, ON

- Providing guidance, offering insight, and overall resources to first and second-year students in their introduction to the tech industry

Software Developer // UW Blueprint
Jan 2020 – Present • Waterloo, ON

- Developed a web client for an NPO that improves the accessibility of social service information through interactive flowcharts
- Wrote scalable front-end flowchart components with TypeScript and React to tackle modular backend data

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
- Utilized Passport.js and local storage to implement OAuth 2.0 and JWT-based authentication for cross-app cybersecurity
- Implemented RESTful API using Node (Express) and MongoDB to support CRUD operations

Education

University of Waterloo // Honours Kinesiology (B.Sc.)
Sept 2017 – May 2022

- Relevant Courses: Computer Science I & II, Data Types & Structures, Human-Computer Interaction, Customer Experience Design