Patrick Du

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Skills

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

Experience

Software Developer // D2L
Jan - Apr 2021 • Kitchener, ON

- On the Platform Development team enabling interoperability and data exchange between Brightspace and external systems

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

- Developed a complex data table using React and Ruby on Rails to handle critical inefficiencies in existing requirement mapping system, reducing student application pushbacks by roughly 80%
- Leveraged event debouncing across 10+ filter components by implementing a custom-built memoized hook in React to eliminate expensive network requests, reducing 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 a C# console app that integrates JIRA issue logs with Harvest timesheets, automating a weekly 30-minute time-log process
- Automated internal support team tasks using ASP.NET 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 a component-based UI library with HTML/CSS and JavaScript used by 20+ engineers for developing internal tools
- Developed a progressive web app with offline support and push notifications to streamline manufacturing team processes, such as inventory checks and plant issue reports

Leadership

Project Developer // UW Blueprint
Jan 2020 - Present • Waterloo, ON

- Built a web platform that digitizes the paramedic workflow to support patient triaging and real-time updates during mass casualty events for the Region of Waterloo Paramedic Services using React, Node, and GraphQL (Apollo)
- Developed a web app for the Social Development Centre that improves the accessibility of social services for 1000+ Waterloo residents through interactive flowcharts using React and Ruby on Rails

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 Computer Science Minor
Sept 2017 - May 2022

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