

Patrick Santoso Lay

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ON, Canada (Open To Relocate)

EDUCATION

Toronto Metropolitan University (Formerly Ryerson University)
Bachelor of Science, Computer Science

Sep 2020 - May 2024

SKILLS

Core Skills: Full-Stack Development (React, Next.js, Angular, Vue) | Front-End Engineering | Mobile Development (Swift, Kotlin) | Cloud Architecture & Infrastructure (AWS, Azure, Lambda, CloudWatch) | Data Science & Analytics (Python, Pandas, Scikit-learn) | API Integration (REST APIs, GraphQL, Node.js) | Data Structures & Algorithms | Test Automation & CI/CD (GitHub Actions, Jenkins, Cypress) | Agile Software Development (Scrum, SDLC, Kanban, MVP, user stories, acceptance criteria) | Version Control (Git, Gitflow Workflow) | Relational & NoSQL Databases (PostgreSQL, MongoDB) | Operating Systems | UNIX/Linux Systems | Distributed Systems | Root Cause Analysis | UI/UX Optimization | Real-Time Systems | Machine Learning (ML) | Artificial Intelligence (AI) | SaaS

Tools & Technologies: TypeScript | JavaScript | HTML | Python (FastAPI, Scikit-learn) | Java | C | C++ | C# (.NET Core / .NET Framework) | Swift | Kotlin | React | Next.js | Angular | VueJS | Spring | Supabase | Docker | Kubernetes | Jenkins | CloudWatch | Splunk | Jira | Confluence | Postman | AWS | Azure Services | NoSQL | SQL | MySQL | UNIX | Bash | Linux | macOS | Windows | Git | IDE (Visual Studio, VS Code) | Automation Tools

RELEVANT EXPERIENCE

Software Engineer – Armonía · Montreal, QC (Remote) · Sep 2024 – Dec 2024

Development & Architecture

- Engineered **cloud-ready full-stack** features and **backend** service logic for a cloud-based **Software as a Service (SaaS)** booking platform using **Next.js, TypeScript, PostgreSQL** and **AWS**, **improving feature delivery speed by 15%** and ensuring scalable, modular architecture.
- Optimized **database** performance and applied **infrastructure-as-code** principles to enhance system responsiveness, resilience, and observability, supporting **20% faster writes** and future growth.
- Researched and prototyped **Digital Asset Management (DAM)** integrations and internal data workflow, **enabling 2x faster media retrieval** and streamlined cross-system access for product teams.
- Collaborated** on **REST API** design and validation using **Postman** and automated test suites (**Cypress**), **reducing API bugs by 25%** and ensuring strong regression coverage.

Automation & Optimization

- Automated **data flow validation, feature testing, and CI/CD deployment** via **GitHub Actions + AWS**, **cutting release time by 50%** and improving system monitoring.
- Streamlined developer workflow by integrating automated testing and standardized environment provisioning, **reducing manual QA effort and new developer onboarding time by 30%**.
- Performed root cause analysis and troubleshooting for failed builds and deployment regressions to **maintain 99% release stability** and high code quality.

Collaboration & Leadership

- Partnered with the co-founder, senior engineers, and product managers in **Agile sprint cycles** to align on priorities, resolve blockers, and translate user needs into actionable technical stories.
- Defined and reviewed acceptance criteria** in **Jira** and **Confluence** to ensure alignment with **customer value** and stakeholder expectations.
- Owned** core backend features like **business/user registration** and **customizable booking restrictions**, managing **tickets** to scope requirements and track progress while ensuring accurate **database persistence** and flexible booking logic.

PROJECTS

Kompak | Next.js, React, Supabase, TypeScript, Tailwind CSS · May 2025 – June 2025

- Designed and built a **cloud-ready project management web app** with real-time board and task tracking, reducing planning friction for student teams.
- Implemented **drag-and-drop functionality** (@dnd-kit), editable modals, and Supabase authentication/storage for secure, responsive data operations.
- Enhanced **user experience** with a **responsive UI**, dark mode, and intuitive task flows, boosting task organization speed.
- Integrated real-time Supabase subscriptions to instantly reflect task creation and status updates without page reloads.

Eventure | *Toronto Tech Week Hackathon 2025* | Next.js, TypeScript, Tailwind CSS, Python, Supabase, PerplexityAI · June 2025

- Delivered the complete **front-end** for a hackathon web app that filters event listings by interest and integrates Perplexity AI and Large Language Model (LLM) for recommendations, showcasing AI capabilities.
- Designed an **intuitive, responsive UI** in Next.js and Tailwind CSS, ensuring smooth user experience within a 24-hour build window.
- Collaborated with **back-end developers** to integrate **AI-generated results** and Supabase data storage for fast, real-time updates.
- Optimized API calls and client-side caching to reduce load times and improve responsiveness during high-traffic demo testing.

Jajan | React Native, Expo, SQLite, TypeScript · June 2025 – July 2025

- Built a **mobile expense-tracking app** inspired by Indonesian “jajan” culture with a clean, intuitive UI.
- Implemented **calendar-based expense logging**, emoji category selection, and modal-driven entry management.
- Developed an **offline-first architecture** using SQLite for fast, reliable local data storage.
- Created **Reusable React Native components** and hooks to simplify state management and reduce duplicate logic across screens.