

# Prabhgun Singh Bhatia

647-540-4003 | [prabhgunbhatia06@gmail.com](mailto:prabhgunbhatia06@gmail.com) | [linkedin.com/in/prabhgunbhatia](https://www.linkedin.com/in/prabhgunbhatia) | [Portfolio](#)

## TECHNICAL SKILLS

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**Languages:** Java, JavaScript, TypeScript, Python, C, C++, C#, SQL, HTML5, CSS3

**Frameworks:** React.js, Next.js, Node.js, Express.js, FastAPI, Flask, Redux, Tailwind CSS, Pandas

**Developer Tools:** Docker, Kubernetes, Git, GitHub Actions, Supabase, AWS, Postman, Bash, Figma, OpenAI

**Certifications:** AWS Certified Developer – Associate (DVA-C02), Microsoft Azure Fundamentals (AZ-900)

## EDUCATION

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**Bachelors of Computer Science (Honours Co-op)**

*University of Waterloo*

Waterloo, ON

*Expected Graduation May 2028*

- **Relevant Coursework:** DSA, OOP, Databases, Operating Systems, Computer Networks, Statistics

## EXPERIENCE

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**Software Engineer Intern (Incoming)**

May 2026 – Aug 2026

*Swish Solar* 🌐

*Waterloo, ON*

- Building scalable full-stack features for a solar analytics platform using **Next.js**, **TypeScript**, and REST API
- Designing data pipelines and performing analysis on **time-series energy data** using statistical methods to detect anomalies, identify trends, and evaluate solar panel performance.

**Software Engineer Intern**

May 2025 – Aug 2025

*SANDBLOX* 🌐

*Concord, ON*

- Built a **real-time admin dashboard** using a serverless AWS stack (**API Gateway**, **Lambda**, **DynamoDB**), supporting **300+ concurrent users** and processing **5K+ events/day**.
- Developed Java-based backend services and asynchronous workflows with **AWS SQS**, scaling to 1000+ requests/hour with reliable job processing.
- Added structured logging and monitoring to improve visibility into job failures, retries, and system health.

**Software Engineer Intern**

May 2025 – Aug 2025

*Electrium Mobility* 🌐

*Waterloo, ON*

- Built an **e-commerce dashboard** using **Next.js** and **Supabase**, delivering **10+ user flows** for product browsing, authentication, and order history.
- Integrated the **Stripe Payments API** with webhooks for checkout and refunds, **S3** for product assets, and shipping APIs for order tracking to support a reliable **order lifecycle**.
- Implemented a **real-time notification system** and a **CI/CD pipeline with GitHub Actions**, reducing deployment time from **30 minutes to 5 minutes**.

## PROJECTS

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**KINETIX - Sports Analytics Platform** 🌐 | *FastAPI, Pandas, Next.js, PostgreSQL, Docker*

Oct 2025

- Deployed a containerized sports analytics platform using **Docker**, implementing a **Python-based** modeling layer to compute workload and fatigue metrics for automated injury risk assessment and predict pace.
- Designed a **FastAPI** backend integrating **Strava**, **Garmin**, and **OpenWeatherMap APIs** to synchronize training data for analyzing performance trends over time.
- Engineered a modeling algorithm to measure true effort in **Python** using **Pandas**, applying **vectorized rolling windows** to model cumulative fatigue and normalize pace data for environmental conditions.

**Swipify — Shopify Hackathon 2025** 🌐 | *React Native, Supabase, PostgreSQL, TypeScript*

Jul 2025

- Built a **Tinder-style swipe interface** using the **Shop Minis SDK** that lets users discover Shopify products by swiping left or right, increasing engagement and personalization.
- Integrated the **FASHN AI vision API** to extract clothing attributes from images and map them to products via the **Shopify Storefront API**, improving recommendation relevance and query efficiency.
- Implemented a live **social outfit feed** using **Supabase functions and webhooks** to increase user interaction.