

# Troy Bello

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## EDUCATION

### Brock University

*Bachelor of Computer Science and Business (Honours)*

October 2025

St. Catharines, ON

**Relevant Coursework:** Data Structures & Algorithms, Operating Systems, Database Systems, Object-Oriented Programming, Web Development, Software Engineering, Distributed Systems, Cloud Computing

## TECHNICAL SKILLS

**Languages:** JavaScript, TypeScript, Python, Java, SQL, Go, HTML5, CSS3, GraphQL

**Frameworks/Libraries:** React.js, React Native, Node.js, Express.js, Next.js, Flask, Redux, Jest, Mocha, Tailwind CSS

**Databases & Cloud:** PostgreSQL, MySQL, MongoDB, DynamoDB, Redis, Firebase, AWS (EC2, S3, Lambda, RDS, CloudWatch), Docker, Kubernetes

**Tools & Practices:** Git, GitHub Actions, Jenkins, CI/CD, REST APIs, GraphQL, OAuth, JWT, Agile/Scrum, Microservices Architecture

## EXPERIENCE

### Royal Bank of Canada

May 2025 – Sep 2025

*Software Engineering Intern*

Toronto, ON

- Architected and deployed scalable RESTful APIs using Node.js and Express, handling 15K+ daily requests with 99.9% uptime and sub-100ms response times across distributed microservices infrastructure
- Built responsive customer-facing dashboards using React.js with Redux state management, implementing real-time data visualization that reduced manual reporting workflows by 85% for 200+ stakeholders
- Engineered backend data processing pipelines integrating PostgreSQL and Redis caching layer, achieving 70% improvement in query performance and reducing database load during peak traffic by 60%
- Implemented comprehensive CI/CD pipelines using Jenkins and Docker, automating deployment workflows with unit and integration testing (Jest/Mocha) achieving 95% code coverage and zero production incidents
- Led Agile sprint ceremonies and conducted code reviews for a 6-person team, mentoring junior developers on React best practices and contributing to 100% on-time delivery of quarterly releases

### Royal Bank of Canada

May 2024 – Sep 2024

*Full Stack Developer Intern*

Toronto, ON

- Developed full-stack mortgage processing application using React, TypeScript, and SQL Server, implementing form validation and data pipelines that processed 10K+ weekly records with 99.8% accuracy
- Designed and built RESTful APIs using Node.js and Express to handle complex business logic, reducing data mismatches by 65% through automated validation middleware and error handling
- Implemented OAuth 2.0 authentication and JWT token management for secure API endpoints, ensuring compliance with enterprise security standards across cross-functional team integrations
- Optimized frontend performance through lazy loading, code splitting, and React Query caching strategies, reducing initial page load time by 45% and improving Lighthouse scores from 65 to 92
- Collaborated with UX designers to translate Figma wireframes into pixel-perfect React components, delivering responsive interfaces with cross-browser compatibility across Chrome, Firefox, and Safari

## PROJECTS

### FinFlow Trading Platform | React, TypeScript, Node.js, Go, PostgreSQL, AWS, Kafka, Redis, Docker [GitHub](#)

- Architecting production-grade trading platform with React/TypeScript frontend and Go/Node.js microservices backend, implementing real-time WebSocket connections for live market data streaming to 1000+ concurrent users
- Designing scalable event-driven architecture using Apache Kafka for order processing and Redis for session caching, achieving sub-50ms latency for trade execution and portfolio updates
- Building RESTful and GraphQL APIs with JWT authentication and rate limiting, deployed on AWS with auto-scaling EC2 instances and RDS PostgreSQL for persistent storage

### Feastly – Social Recipe Platform | React, JavaScript, Node.js, Python Flask, Firebase, Vercel [GitHub](#)

- Built full-stack social recipe application with React frontend and Python Flask backend across 187 commits, deployed on Vercel serving 500+ monthly active users with 99% uptime SLA
- Implemented Firebase Authentication with OAuth providers and real-time Firestore database for instant feed updates, enabling social features including likes, shares, follows, and personalized recommendations

- Led 7-person Agile development team as frontend lead, conducting sprint planning, code reviews, and deploying CI/CD pipelines using GitHub Actions for automated testing and deployment

#### **E-Commerce Platform** | Next.js, TypeScript, Node.js, MongoDB, Stripe API, AWS S3, Docker [GitHub](#)

- Developed full-stack e-commerce application using Next.js with server-side rendering and TypeScript, implementing product catalog, shopping cart, and checkout flow with Stripe payment integration
- Built RESTful API layer with Express.js and MongoDB Atlas, implementing aggregation pipelines for inventory management and order processing with 99.5% transaction success rate
- Deployed containerized application using Docker on AWS with CloudFront CDN, achieving 40% faster page loads and implementing CloudWatch monitoring for real-time performance tracking

#### **CERTIFICATIONS**

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IBM Data Engineering Professional Certificate | Meta Database Engineer Professional Certificate | Google Generative AI Fundamentals