

RAHUL RAKESH

✉ rahul.rakesh1012@gmail.com — [in linkedin.com/in/rahulrakesh10](https://www.linkedin.com/in/rahulrakesh10) — [🌐 rahulrakesh.dev](https://rahulrakesh.dev) — [🐙 github.com/rahulrakesh10](https://github.com/rahulrakesh10)

EDUCATION

University of Western Ontario

2023–2028

B.Sc. Honours Specialization in Computer Science (CO-OP)

London, Ontario

– **Relevant Coursework:** Data Structures & Algorithms, Databases, Software Engineering, Operating Systems

WORK AND LEADERSHIP EXPERIENCE

Freelance Web Developer

Sept 2024 – Present

Self-Employed

Remote

- Delivered production-grade full-stack applications for **5+ clients** using **React, Node.js, Express.js**, and **PostgreSQL** with RESTful API design.
- Improved website performance with **50% faster load times** and **40% higher engagement** through code optimization, lazy loading, and SEO best practices.
- Led projects end-to-end: requirements gathering, system design, CI/CD pipelines, and deployment to **AWS** and **Vercel**.

Ultimate Frisbee Captain / Coach

June 2022 – Aug 2025

School / Merciful Redeemer Parish

Mississauga, Ontario

- Led and coached a competitive team of **15+ players** to **2 tournament championships** by coordinating training, strategy, and logistics.
- Achieved **90% year-over-year player retention** by developing structured training programs emphasizing skill development and teamwork.

PROJECTS

Fake Out – Real-Time Multiplayer Game — *React, TypeScript, Node.js, Socket.IO, Docker, Fly.io*

- Built a real-time multiplayer game achieving **sub-100ms latency** and **99.5% uptime** using **React, TypeScript, Node.js**, and **Socket.IO** with event-driven architecture.
- Designed **authoritative server-side game state** with room-based events and heartbeat monitoring, supporting **10 concurrent players** without desynchronization.
- Deployed containerized services via **Docker** on **Fly.io** with CI/CD pipelines, handling **1,000+ game sessions**.
- Implemented **graceful reconnection logic** and session persistence so players rejoin seamlessly after network drops without losing game state.

Schedula – Serverless Booking Backend — *Azure Functions, Azure SQL, JWT, REST API*

- Developed a serverless booking API with **sub-200ms response times** using **Azure Functions, Azure SQL**, and JWT-based authentication.
- Prevented race conditions and double bookings through **transaction-safe scheduling**, SQL isolation levels, and idempotent API design.
- Designed a clean RESTful interface with structured error handling, input validation, and API versioning for maintainability at scale.
- Modeled a **normalized relational schema** with indexed foreign keys to support efficient multi-user concurrent booking queries under load.

VitaLink (TerraHacks 2025) – AI Healthcare Platform — *React Native, Django REST, PostgreSQL*

- Reduced patient intake time by **30%** by building a full-stack healthcare platform using **React Native** and **Django REST Framework**.
- Designed a normalized **PostgreSQL** schema with relational data models to support complex patient and scheduling workflows.
- Integrated third-party APIs into backend service pipelines, processing structured outputs for downstream features and form pre-filling.
- Implemented **role-based access control** with token authentication to enforce data privacy across patient, provider, and admin user tiers.

TECHNICAL SKILLS

Languages: Python, Java (OOP, backend systems), JavaScript, TypeScript, C/C++, SQL

Web & Backend: React, Node.js, Express.js, Django REST Framework, REST APIs, Socket.IO

Databases & Caching: PostgreSQL, MongoDB, SQLite, Redis, Azure SQL — schema design, indexing, query optimization

Cloud & DevOps: AWS (EC2, S3, Lambda), Azure Functions, Docker, CI/CD (GitHub Actions), Vercel, Fly.io