

# Ishan Baliyan

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## Skills

**Languages** Python · Golang · Java · C++ · Objective-C · TypeScript/JavaScript · Swift · Kotlin

**Tools** AWS (EC2, S3, RDS) · PostgreSQL · MySQL · Docker · Kubernetes · Linux

**Frameworks** React · Node.js · REST API · http · gRPC · WebSockets · iOS/Android

## Education

### University of Waterloo

Sep. 2021 – Apr. 2026

Candidate for Bachelor of Computer Science · GPA: 3.8/4.0

Waterloo, ON

- Competitive Programming: Top 1% on Leetcode Competitions out of 30,000 participants (2023, 2024)
- Coursework: Algorithms & Data Structures, Operating Systems, Distributed Systems, Networks, Testing, User Interfaces

## Work Experience

### Sony

Sep. – Dec. 2024

Software Engineer

San Mateo, CA

- Built distributed system in Python for optimizing payments on PlayStation Store, enhancing successful transactions by 5%.
- Optimized security performance by 15% with fraud-detection and AWS (EKS) instances to prevent illegal transactions.
- Developed a custom load balancing algorithm for backend microservices, reducing server response time by 20%.

### Kinaxis

Sep. 2023 – Apr. 2024

Software Engineer

Toronto, ON

- Designed REST API for backend algorithms in Python and Golang, handling 1 million requests and reducing latency 20%.
- Built API endpoints and distributed service hosted on AWS and Kubernetes, increasing service reliability and server load.
- Tested (unit, integration, load tests) for database supply algorithms, resulting in 25% improvement in code coverage.

### Atolio

May. 2022 – Jan. 2023

Software Engineer

San Francisco, CA

- Built core ETL microservice for Generative AI streaming platform using Python and Golang, processing 10,000 events/min.
- Engineered messaging pipeline with Apache Kafka streaming, managing ETL workload and reducing batch processing by 40%.
- Orchestrated containerized cloud computing using Docker and AWS, enabling seamless deployment of ETL pipelines.

### MVS Systems

Jun. – Aug. 2021

Software Engineer

Toronto, ON

- Built a distributed framework in Python for large-scale data processing, reducing load time by 35% across multiple services.
- Implemented data partitioning in a microservices architecture, optimizing queries by 10% and enabling horizontal scaling.
- Designed multithreading control model, enhancing system throughput by 25% and reducing latency by 15%.

## Relevant Projects

### Resume Builder | Python, React Native, GPT, PostgreSQL, RevenueCat SDK

- Created a Resume Builder app on [App Store](#) and [Google Play](#), resulting in 50,000+ downloads and \$7,500 revenue.
- Engineered 18+ user-facing features and 15+ A/B tests for increasing user-engagement and session time by 40%.
- Architected end-to-end ETL pipeline architecture, processing over 100,000 events in Firebase and OpenAI API.
- Designed Python data visualization tools integrated with Firebase Analytics to track user behavior across 15+ key features.
- Achieved 20% month-over-month user growth, 200+ Five-Star reviews, and 50,000 downloads across 124+ countries.

### Phone Automation for Restaurants (video demo) | Twilio, Javascript, React, GPT, MySQL, Square API

- Designed an AI phone assistant, "Talk & Order," to automate phone calls at restaurants in Waterloo, no human staff needed.
- Built a Twilio system that manages real-time, concurrent calls, ensuring restaurants never miss an order during peak hours.
- Deployed the solution in three pilot restaurants in Waterloo, generating potential savings of \$4,000 in monthly revenue.

### PiggyBank | React, Node.js, MongoDB, Express, Axios, Cheerio, Nodemailer

- Developed a youth banking application using React, winning First Place at Waterloo Hackathon out of 300+ participants.
- Web scraped Amazon and Shopify product listings using Axios and Cheerio, asynchronously updating live inventory.
- Built email approval automation with Nodemailer, letting parents approve purchase requests through email.
- Deployed the application using Heroku and integrated live purchasing with Stripe API, handling concurrent users efficiently.