Rashik Shahjahan

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Skills _

Languages Python, Java, C, C#, C++, JavaScript, Typescript, Go, Rust

Technologies React, PostgreSQL, Redis, AWS, GCP, MongoDB, RabbitMQ, pgvector, Pytorch, Kubernetes

Experience _

Fractal Tech

New York, New York

September 2024 - December 2024

ADVANCED SOFTWARE ENGINEERING STUDENT

- Developed an Al-powered art generation platform using React, TypeScript, and Express, incorporating secure Python code execution, **pgvector** for vector similarity search, and **LLM**-based code generation. Demo available here.
- Built over 40 full-stack applications as part of a rigorous 56-hour-per-week training program, focusing on end-to-end development with modern frameworks.
- Collaborated with Gridify to deliver a **React**-based MVP in just **three weeks**, meeting tight deadlines and contributing to a functional product prototype.

nference Toronto, Ontario

SOFTWARE ENGINEER

January 2022 - February 2024

- Led a team of 3 engineers to build a metrics monitoring system for 250+ machines using RabbitMQ, InfluxDB, and FastAPI, reducing downtime incidents by 50%.
- Optimized a high-traffic **Node.js** application by implementing **MongoDB** sharding, reducing response times by **20x**.
- Built a health monitoring system with **Python**, cutting application downtime by **30x** through automated error detection and recovery.
- · Redesigned an NLP pipeline with Python and Ray, achieving 1800x faster query processing by optimizing workflows through asynchronous operations.
- Directed a migration from Redis to PostgreSQL, boosting query efficiency by 20x and ensuring seamless handling of high-volume data.

Thrivr Inc. Remote, Canada

SOFTWARE DEVELOPER

August 2021 - December 2021

• Enabled a seamless booking experience by integrating **Google Maps** into a **React** application.

CloudConstable Inc.

Toronto, Ontario June 2021 - August 2021

SOFTWARE DEVELOPER (CONTRACT)

Enhanced fever detection accuracy by 70% by designing a computer vision algorithm using C++ and OpenCV.

Mannlab Toronto, Ontario RESEARCH INTERN *May 2020 - September 2020*

Designed and implemented an EEG-based auditory attention detection system using CNNs and and SVMs

Adlib Software Burlington, Ontario

Automated Windows and SQL Server security benchmarks audits, enhancing operational efficiency.

Mighty Egg Technologies

Toronto, Ontario

SOFTWARE ENGINEERING INTERN

May 2018 - September 2018

September 2019 - December 2019

• Developed a serverless Node.js chatbot using AWS Lambda, enabling efficient automation of regular surveys.

Patents

DEVOPS CO-OP

Method and System for Determining Relationships Between Linguistic Entities - US-20230143418-A1

nference, Toronto, Ontario

CO-INVENTOR(PENDING) 2022-11-04

• Built a system to convert text corpora into dependency trees, enabling faster relationship classification between entities.

Education

McMaster University Hamilton, Ontario

BACHELOR OF ENGINEERING IN ENGINEERING PHYSICS CO-OP