Rashik Shahjahan

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Skills

Languages   Python, Java, C, C#, C++, JavaScript, Typescript, Go, Rust, CSS
Technologies   React, PostgreSQL, Redis, AWS, GCP, MongoDB, RabbitMQ, pgvector, Pytorch, Kubernetes

Experience

⧉ Fractal Tech
New York, New York
SOFTWARE ENGINEER
September 2024 - December 2024

- Developed an AI-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
SOFTWARE DEVELOPER (CONTRACT)
June 2021 - August 2021

- 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
DEVOPS CO-OP
September 2019 - December 2019

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

⧉ Mighty Egg Technologies
Toronto, Ontario
SOFTWARE ENGINEERING INTERN
May 2018 - September 2018

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

Patents

⧉ 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
2016 - 2021