## Rashik Shahjahan

Skills

**Languages** Python, Java, C, C#, C++, JavaScript, Typescript, Go **Technologies** React, PostgreSQL, Redis, AWS, GCP, MongoDB, RabbitMQ

## Experience \_

Fractal Tech

New York, New York

ADVANCED SOFTWARE ENGINEERING STUDENT

September 2024 - December 2024

- 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 an early-stage startup 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

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

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

nference, Toronto, Ontario

Co-Inventor(Pending)

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

## **Education**

**McMaster University** Hamilton, Ontario