

# Rashik Shahjahan

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## Skills

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**Languages** Python, Java, C, C#, C++, JavaScript, PHP, Go  
**Technologies** Git, PostgreSQL, Linux, Redis, AWS, GCP, MongoDB, RabbitMQ

## Experience

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 **ference** Toronto, Ontario  
SOFTWARE ENGINEER January 2022 - February 2024

- Led a team of **3** engineers to develop and deploy a Python-based metrics monitoring system across **250+** machines using **RabbitMQ**, **InfluxDB** and **FastAPI**, resulting in **50%** improvement in system availability.
- Optimized database performance of a high-traffic **Node.js** application by implementing **MongoDB** sharding, resulting in **20x** faster query speeds and enhancing user response times.
- Engineered a health monitoring system using **Python** and **Flask** for distributed applications, reducing system downtime by **30x** by implementing efficient error detection and recovery mechanisms.
- Redesigned distributed NLP pipeline using **Python** and **Ray**, making queries upto **1800x** faster.
- Led a database migration from **Redis** to **PostgreSQL**, enhancing query performance by **20x**.

 **Thrivr Inc.** Remote, Canada  
SOFTWARE DEVELOPER August 2021 - December 2021

- Enhanced user experience by integrating Google Maps into the website using **React**.

 **CloudConstable Inc.** Toronto, Ontario  
SOFTWARE DEVELOPER(CONTRACT) June 2021 - August 2021


- Increased fever detection accuracy by **70%** by implementing a computer vision algorithm with **C++** and **OpenCV**.

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

- Achieved over **80%** accuracy in an EEG-based auditory attention detection system using **Tensorflow**.

 **Adlib Software** Burlington, Ontario  
DEVOPS CO-OP September 2019 - December 2019

- Automated the auditing and remediation of windows and SQL server security benchmarks with **Inspec** and **Ansible**.

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

- Wrote a serverless **Node.js** back-end for a Facebook Messenger bot.

## Patents

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**Method and System for Determining Relationships Between Linguistic Entities - US-20230143418-A1** ference, Toronto, Ontario

CO-INVENTOR(PENDING) 2022-11-04

- Developed an innovative method and system for analyzing and classifying relationships between tokens in a text corpus.

## Education

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**McMaster University** Hamilton, Ontario  
BACHELOR OF ENGINEERING IN ENGINEERING PHYSICS CO-OP 2016 - 2021

**University of Colorado Boulder**  
MASTER OF SCIENCE IN COMPUTER SCIENCE 2024 - 2025