

# Shazil Arif

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## Education

### McMaster University

BACHELOR OF ENGINEERING, SOFTWARE ENGINEERING

Hamilton, Ontario, Canada  
Expected Graduation April 2022

• **GPA: 3.7/4.0, Deans' Honour List Recipient (2019 and 2020)**

• Relevant Courses: Software Design (A+), Computer Architecture (A+), Unix Shell and Assembly Programming (A+)

## Experience

### Full Stack Developer Intern

MENLOLAB INC

Hamilton, Ontario, Canada

May 2020 - Present

- Engineered a robust and high performance microservice to manage user data and authorization that is used by **5+** microservices, using **Node.js**, **Express.js**, **MongoDB** and **Redis**
- Implemented a graph search algorithm to authorize users for inherited groups and projects, using **TypeScript**
- Reduced average MongoDB query time by **80%** by refactoring database code and creating database indexes
- Performed extensive unit and integration testing with a code coverage of **95%**, using **Mocha** and **Chai**
- Allowed users to create and manage groups by developing **10** new front-end pages, using **Vue.js** and **Socket.IO**
- Reduced a new developer's setup time by **75%** by developing a script that generates boilerplate code, folder structure and necessary docker files to set up a new microservice

### Full Stack Developer

MCMASTER MUSLIM STUDENTS' ASSOCIATION

Hamilton, Ontario, Canada

July 2019 - September 2019

- Architected a full stack content management web application that is used to push notifications about ongoing events to **1000+** campus students, by self-learning various web development technologies
- Created an intuitive user interface allowing admins to post events and announcements, using **jQuery** and **Bootstrap**
- Developed RESTful API endpoints to manage user authentication and data, using **Node.js**, **Express.js**, **Firebase** and **Google Cloud Storage**

### Software Developer

FATHER MICHAEL GOETZ SECONDARY SCHOOL

Mississauga, Ontario, Canada

February 2019 - March 2019

- Crafted a real-time indoor navigation app that detects user location based on nearby Wi-Fi access points, using **Java**
- Showcased app at **DP Innovator's Summit 2019** and awaiting approval for use by **1000+** students

## Projects

### Swagger-doc-gen-cli

PERSONAL PROJECT

npmjs/swagger-doc-gen-cli

June 2020

- Published an open source JavaScript package that generates an OpenAPI specification and received **1200+** downloads

### AirWise

HACKATHON PROJECT

devpost/software/airwise

July 2019

- Built an air quality monitoring web application that won **2nd overall** out of 128 teams at DeltaHacks 2019, using **JavaScript**, **jQuery** and **Firebase**
- Devised an algorithm in **Python** to predict future air quality data by approximating a curve of best fit on existing data

### Pathify

COURSE PROJECT

github/shazil-arif/Pathify

April 2020

- Engineered a RESTful API to find the shortest path that visits a set of destinations in order, using **Java** and **Spring**
- Implemented Dijkstra's algorithm and a Binary heap to evaluate a road dataset with over **1 million** edges

### Vidly

PERSONAL PROJECT

github/shazil-arif/Vidly

September 2019

- Crafted a RESTful API for a video rental service, using **Node.js**, **Express.js**, **MongoDB** and **Jest**
- Implemented user authentication using JSON Web tokens and deployed the API to **Heroku**

## Skills

### Languages

Python, Java, JavaScript, TypeScript, C, C#, Bash, SQL, HTML, CSS

### Technologies

Node.js, Express, Spring Boot, Vue.js, MongoDB, Firebase, Redis, Docker, Heroku, GCP, Git, Linux