

# Madhi Nagarajan

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## Education

### Software Engineering (B.Eng) - Third Year

Sept. 2018 - April 2022

McMaster University

Hamilton, ON

- **GPA: 3.3/4.0** | Awards: Dean's Honour List, McMaster Entrance Scholarship
- Relevant Courses: Software Design & Documentation (A+), Unix & Assembly (A+), Algorithms & Data Structures (A-)

## Skills

**Languages** C#, JavaScript, Python, Java, SQL, PHP, HTML/CSS, Objective C  
**Frameworks** .NET MVC, jQuery/Ajax, React, Node.js, Flask, Spring  
**Tools** SQL Server, Azure, MongoDB, Firebase, MySQL, Apache, Bash, PowerShell, Git, Selenium

## Experience

### Full Stack Developer

May 2019 - August 2020

Dynasoft

Mississauga, ON

- Utilized **.NET MVC & Entity Framework** to create and enhance **15+** services and webpages
- Integrated key frontend UI components using **jQuery/Ajax** & Kendo UI to visualize fleet and accounting data in the form of charts, graphs, and calendars
- Maintained a Relational Database (RDBMS) through **SQL Server** and **Azure** environments
- Optimized SQL database queries and database code, reducing average SQL Server query time by **30%**
- Integrated Google Maps API to display route maps for transportation drivers

### Web Developer

May 2018 - August 2020

Dynasoft

Mississauga, ON

- Leveraged technical, analytical, and problem-solving skills to create UI/UX mockups and websites
- Customized WordPress themes and plugins using **PHP, MySQL, Apache Server**, and HTML/CSS
- Created content for SEO purposes, improving overall site traffic by **50%**
- Trained and integrated AI and machine learning bots using **IBM Cloud** and **IBM Watson** to communicate and process requests from site visitors

### Vice President

April 2017 - June 2018

FIRST Robotics Team 4308: Absolute Robotics

Mississauga, ON

- Coordinated a team of **60+** members to build an industrial-sized robot that participated in numerous competitions, including the FIRST Robotics World Championships held in Detroit, USA
- Led team to successfully reach the semi-finals in the 2018 FIRST Robotics World Championships
- Managed the team's finances of **\$20,000** and met with companies to raise \$10,000+ in sponsorships
- Mentored 40+ students and 3 sub-teams relating to **Java** software development, electrical systems, and CAD robotics design

## Projects

### Pathify

Course Project

- A web mapping service that develops efficient & optimized route plans for delivery drivers using **React** and a **Java Spring REST API**
- Parsed a road dataset with **1 million+ edges** and graphed the data using Dijkstra's Algorithm and Breadth First Search
- Worked collaboratively in a Scrum development environment with team members

### Tutorfy

DeltaHacks 2020

- A networking application that connects students with local tutors on university campuses across Ontario
- Created a dynamic and responsive frontend using React & Material UI to display popular and new tutors
- Built a REST API with **Python Flask & MongoDB** for the applications's CRUD operations and deployed the app using **Firebase**

### Lyrio

Personal Project

- A React application that displays and updates lyrics based on a user's currently playing song
- Created and deployed a **Node.js** server that used Spotify's **OAuth2** API endpoints to authenticate users and extract song data