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, NUnit, Selenium

Experience

Full Stack Developer   *May 2019 - August 2020*
Dynasoft   *Mississauga, ON*

- Utilized **.NET MVC** & **Entity Framework** to create **15+** services and webpages with data grid interfaces & entry forms
- Integrated key frontend UI components using tools like **jQuery/Ajax** & Kendo UI to visualize fleet and accounting data
- Created and maintained Stored Procedures, Functions, Table Relationships within **SQL Server**
- 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 dynamic websites
- Customized WordPress themes and plugins using **PHP**, **MySQL**, **Apache**, and HTML/CSS
- Designed and developed UX features that enhanced performance and styling of websites
- Created content for blog and 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 to participate 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 numerous companies to help 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
Software Engineering 2XB3 - Final Project

- A web application that develops efficient & optimized route plans for transportation drivers using a **React** frontend and **Java Spring** backend
- Utilized Here's Traffic REST API to form and display a route map based on traffic data
- Featured Dijkstra's Algorithm and Breadth First Search to graph a road dataset with **1 million+ edges**
- Worked collaboratively in a Scrum development environment with team members

Tutorfy
DeltaHacks 2020

- A web 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 frontend using **Firebase**

Lyrio
Personal Project

- A React web 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