

ROMIT SAGU

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EXPERIENCE

.NET Developer Co-Op | FGF Brands / Wonderbrands

Sept 2023 – Sept 2024

Azure App Services, Azure App Registration, Azure DevOps, .NET Framework, .NET Core, C#, Microsoft SQL Server, Power Automate

North York, ON

- Designed, developed, and provided ongoing support for multiple **.NET Core** and **.NET Framework** web applications and web APIs, ensuring high performance, scalability, and maintainability while adapting to evolving business requirements.
- Led infrastructure management operations by implementing **CI/CD** pipelines in **Azure**, reducing deployment times by **80%** and significantly improving developer productivity and efficiency.
- Created and optimized tables, views, stored procedures, and functions in **Microsoft SQL Server** databases, enhancing performance and aligning with evolving business requirements.
- Engineered multiple **.NET Core** applications utilizing the **Microsoft Identity Framework** and created a custom **OAuth2/OpenID Connect** Identity Provider, enabling secure and flexible authentication solutions.

Avionics Specialist | Toronto Metropolitan Aero Design (TMAD)

May 2024 – Sept 2025

Cloudflare, GitHub Pages, ReactJS, Redux, JavaScript, Tailwind CSS, EmailJS, NextJS, TypeScript

Toronto, ON

- Reduced annual hosting costs by **96%** by creating a **React** redux application deployed on **GitHub Pages**, with **Cloudflare** handling DNS, domain management and SSL encryption.
- Led a team of 4 developers in designing and developing a custom React application, built with maintainability in mind to enable long-term use and updates by non-technical stakeholders.

PROJECTS

Home Cloud Server

Server Administration, Data Management, Data Backups, Remote Access, Documentation, Cloud Computing, Kubernetes

- Configured and managed a TrueNAS **ZFS** file server with **Virtual Machines** supporting **Kubernetes**, **LanCache** and **MailCow** including storage medium tiering, network configuration and data backups.
- Built a Proxmox Virtual Environment server to host multiple **Linux Containers (LXC)** and Windows Server virtual machines.
- LXC applications include a **HAProxy Load Balancer**, a **GitHub Actions** self-hosted runner and a docker compose deployment.

Smart Traffic Control System

.NET 8, Syncfusion, Microsoft SQL Server, HTML, CSS, C#, SQL, Docker, Docker Compose, REST API, SignalR, Live Streaming, RTMP

- A system built to address rising concerns of accessibility, control and traffic management using sensors, cameras, buzzers, momentary switches and remote access software.
- Integrated with **Computer Vision** using **MobileNetV2** and **Pytesseract** detect the license plates of cars that commit traffic violations at intersections and issue tickets.
- Uses **.NET MVC** to create a user interface that host **SignalR Hubs**, a **.NET Web API** to create **REST API** endpoints, **Python** to create a **Raspberry Pi** client that interfaces with hardware, and a **RTMP** video live streaming application.

MRI Brain Tumor Detection

NextJS, Flask, TailwindCSS, Docker, Nginx, Github Actions Runner, CI/CD, Tensorflow, Keras API, Jupyter Notebook, Numpy, Pandas

- Trained models for the **Segmentation** and **Classification** of brain tumors taken from MRI images achieving accuracies of **99%** on unseen images.
- Created a **Flask** and **NextJS** application with two functions where users can upload MRI images and are returned the classification of the tumor or highlighted segments of the image that contain a brain tumor.
- Deployed the application using a **GitHub self-hosted runner** with **Continuous Integration (CI)** to build a Docker image, followed by **Continuous Deployment (CD)** through **Docker Compose**.

PROFESSIONAL CERTIFICATIONS

Docker Foundations Professional Certificate

Docker, Inc

Docker, Docker Compose, Containerization, Kubernetes

Career Essentials in GitHub Professional Certificate

GitHub

GitHub, GitHub Actions, GitHub Copilot

Getting Started with Kubernetes

LinkedIn

Kubernetes, Microservices

EDUCATION

Toronto Metropolitan University (Formerly Ryerson University)

Sept 2020 – June 2025

Bachelor of Engineering – Computer Software Engineering Co-Op Distinction

SKILLS

Languages: C#, Java, TypeScript, JavaScript, C++, Python, C, HTML, CSS, MATLAB, VHDL

Databases: Microsoft SQL Server, MySQL, SQLite, PostgreSQL, Oracle 21c, SQL, MongoDB

Frameworks: ReactJS, NextJS, ASP.NET Core, FastAPI, TensorFlow, Keras API, Matplotlib, Pandas, NumPy, LangChain, Haystack

Tools: Git, Docker, Kubernetes, NuGet, Kendo UI, Visual Studio, SSMS, VSCode, Azure Data Studio, TrueNAS, Proxmox

Methodologies: Agile Development, Scrum Framework, Version Control, CI/CD, Object Oriented Programming (OOP)