

Joshua Mac

Mac.joshua450@gmail.com | (647) 450 – 2760 | Toronto, Canada | www.Joshuamac.com

Technical Skills

Programming Languages: Python, JavaScript, C/C++, SQL (PostgreSQL, MongoDB), VB.NET

Frontend: React, Vue, D3.JS, Bootstrap, Tailwind

Backend: Node.JS, Express.JS, Flask, RESTful APIs, GraphQL

Relevant Technologies: AWS EC2, CI/CD, Git, Docker, Selenium, Pytest

Experience

Software Engineer

TELUS | September 2024 – January 2025

TELUS | January 2023 – August 2023

- Designed and implemented Oasis, an internal enterprise tool using React and VB.NET to improve project workflows, wireline management, and network operations.
- Integrated CI/CD pipelines using GitHub Actions, enabling automated deployments, testing, and version control to streamline releases.
- Utilized Python (NumPy, Pandas) to integrate real-time network operations data, identifying inefficiencies and improving data accuracy.
- Automated regression testing with Selenium, reducing manual testing efforts by 50% and improving defect detection rates by 40%.

Full Stack Engineer

Mitsubishi | May 2022 – January 2023

- Developed and maintained a Component Tracking Tool using React and Flask, enhancing authentication and real-time data visualization for operators.
 - Deployed the application on AWS EC2, optimizing server configuration for high availability and cost efficiency.
 - Implemented test-driven development (TDD) with Pytest, ensuring seamless integration between frontend and backend components.
 - Performed monthly data analysis using Python and Excel's advanced visualization tools, presenting insights to stakeholders.
-

Projects

Traffic Violation Detection with Machine Learning and AI

Skills: Machine Learning, Deep Learning, Computer Vision, Data Augmentation, Model Deployment

- Developed and deployed a machine learning pipeline using YOLOv5 for speed sign detection and ResNet-18 for speed zone classification, integrating real world traffic camera footage
- Collected and augmented a collection of images using a GAN model to produce 10000 images, implementing data cleaning and preprocessing procedures to ensure dataset quality

DevHub: Developer Portfolio & Blogging Platform

Skills: RESTful API, Authentication, Security (Bcrypt), Database Management

- Developed a full-stack web app using React, Redux, Node.js, Express, and PostgreSQL, featuring JWT/OAuth authentication and a real-time commenting system
 - Designed an interactive project gallery & blogging platform on Vercel and seamless navigation with Tailwind CSS & React Router
-

Education

Queen's University, Kingston, ON

Bachelor of Applied Science, Computer Engineering

- **Relevant Courses:** Data structures, Object Oriented Programming, Fundamentals of Software Engineering, Algorithms, Computer Vision, Machine Learning and Deep Learning, Engineering Design and Practice