

## Joshua Philip

### Employment

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**Software Developer**                      **ProsoftSynergies**                      **November 2024 - Present**

**Technologies used:** MERN stack (MongoDB, Express, React, and Node.js), Socket.io, AWS EC2

- Developed a customer service chatbot using the MERN stack
  - Used Socket.IO and websockets for real-time conversations
  - Developed a dashboard for the agents to monitor and respond to users in real-time
  - **Website link:** <https://prosoftsynergies.com/>
- Deployed instances using AWS EC2

**Software Developer, Intern**                      **SOTI Inc.**                      **May-December 2023**

Lifecycle Management of Phones and Mobile Devices Project, Industry Partner: SOTI

- Improved privacy of Android app by researching, and implementing a centralized federated learning system using Java, Kotlin (edge devices), and Python (server-side)
- Rewrote Python preprocessing code in Kotlin and Java for on-device execution
- Trained a TensorFlow Lite model on the CIC dataset to detect malicious connections, utilizing VirusTotal API for connection classification to help with network security
- Incorporated on-device training with TensorFlow Lite

**Machine Learning Data Analyst, Intern**                      **Naryant**                      **May-December 2022**

Smart Towns: Optimizing Urban Planning Using IoT, Industry Partner: Naryant & Town of Oakville

- Utilized Pandas, NumPy, and GeoPandas to analyze large datasets, geocode bus stop names, map data points, and visualize origin-destination locations with geospatial coordinates
- Ensured code quality through QA testing, evaluating Python code against specified requirements
- Led the design of a 400-person survey that utilized Python tools for data cleaning and analysis

### Education

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**Honors Bachelor of Computer Science (Mobile Computing) - Graduated: December 2023**

Sheridan Institute of Technology & Advanced Learning - Oakville, ON

- Cumulative GPA: 3.51 / 4.00

### Certifications

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**Harvard edX Verified Certificate for CS50's Introduction to Artificial Intelligence with Python:**

- **Topics:** Python, graph search algorithms, classification, optimization, reinforcement learning

**Microsoft Technology Associate: Software Development Fundamentals (MTA):**

- **Topics:** ASP.NET, C#, decision structures, object-oriented principles, web services integration

### Software Projects

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**Real-Estate Management App - SwiftUI, Firebase**

- Integrated machine learning algorithms to ensure image compliance
- Developed real-time chat functionality using Firebase for communication between tenants and landlords
- Implemented a property search system to allow Tenants to filter their searches or view nearby properties using a map
- Created a user management system that utilizes Firebase for storage and authentication and a forgot password page for the user to request a password reset

**Traffic Sign Recognition using TensorFlow - Python, TensorFlow, OpenCV, scikit-learn**

- Designed and built a neural network to classify road signs using the German Traffic Sign Recognition Benchmark (GTSRB) dataset
- Used TensorFlow and OpenCV for deep learning

### Skills

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**Proficient:** React, Node.js, SwiftUI, Kotlin, Java, Python, Git, SQL **Familiar:** C++, HTML/CSS