Rashik Shahjahan

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Skills

Languages Python, Java, C, C#, C++, JavaScript, HTML, CSS, SQL, Matlab, Bash, Assembly
Technologies Tensorflow, Pytorch, Node.js, Git, Arduino, Ansible, Inspec, Simulink, Inventor

Experience

Mannlab
Toronto, Ontario

Research Intern
May 2020 - September 2020

Worked as a research intern at Professor Steve Mann's lab.

- Used **Tensorflow** to construct a **Convolutional Neural Network** for classifying EEG data, achieving over **80%** accuracy.
- Developed **Python** software to record EEG data and perform signal processing on it to prepare it for classification.
- Built a quadrature signal generator with an Arduino programmed in **C++** to control a linear actuator.
- Coded a software defined sonar system with **Python** for use in object detection systems.

Adlib Software
Burlington, Ontario

DevOps Co-op
September 2019 - December 2019

Worked as a DevOps engineer in the Cloud Operations team.

- Developed and tested an **Ansible** module with **Python** to call the TFS REST API.
- Built a library in **C#** to aid the development of **Ansible** modules.
- Automated the auditing and remediation of windows and SQL server security benchmarks with **Inspec** and **Ansible**.
- Wrote **Ansible** roles for automating the deployment of a server logging and metrics platform.

Mighty Egg Technologies
Toronto, Ontario

Software Engineering Intern
May 2018 - September 2018

Worked as an intern in the software solutions firm.

- Wrote a **Node.js** back-end for a Facebook Messenger bot.
- Improved space efficiency of Node.js app by **1000x** by shifting to a **serverless** architecture.
- Wrote **Python** program which automates the task of sending updates to the Messenger bot.
- Integrated Firestore and DynamoDB cloud database with **Node.js** app.
- Improved the website design for advin.ca using **HTML** and **CSS** to deliver a better user experience for customers.

Projects and Extracurriculars

Spiral-ator PyTorch, OpenCV
A ball tracking and form correction system for aiding in ameteur football coaching.

MOABB Python
Open source contributions to add Keras support to a brain-computer interface algorithm benchmarking tool.

Skydar Arduino
A LIDAR based automated distance measurement tool for streamlining construction work.

Education

McMaster University
Hamilton, Ontario

Candidate for Bachelor of Engineering Physics and Minor in Mathematics
2016 - 2021 (Expected)

Notable Courses:

- Machine learning and neural networks
- Predictive and intelligent control
- Digital signal processing
- Embedded systems II