Aksh Ravishankar

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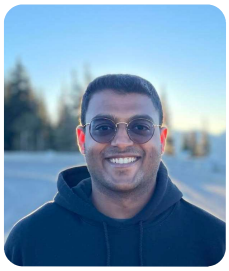

Education

B. Eng. | Sept 2018 – April 2023 | Carleton University

- Major: Computer Systems Engineering with a 4.0 GPA.
- Related coursework: Object-Oriented Development, Data Structures and Algorithms, Machine Learning, Cybersecurity, Communications Engineering, Project Management, Embedded Development

Experience

Software Quality Assurance Analyst | Circle NVI | May 2021 – July 2022

- Proposed, developed, and maintained a scalable **automated testing framework** using Selenium/Python.
- Responsible for performing and documenting **software testing** steps on various platforms.
- Implemented a **Continuous Deployment pipeline** to optimize development and testing workflow.
- Worked with customers to gather requirements and usage workflows.
- Used and maintained Docker environments in Linux to simulate deployment.
- Worked in **AGILE** environment using SCRUM methods to meet team and company goals.

Software Engineer | Hotchkiss Brain Institute | April 2022 – July 2022

- Developed **backend architecture**, standard workflows, and mobile app user interactions/use cases.
- Developed **medium-fidelity design** for the proposed app using modern wireframing tools.
- Documented and suggested improvements to existing **data storage** and **controlled access** infrastructure.

Infrastructure Intern | Hatch Ltd. | May 2019 – September 2019

- Worked with Light Rail Transit team to analyze traffic flow using VISSIM simulation software.
- Worked with Software Development team to build in-house simulation integration tool using C/C++.

Teaching Assistant | Carleton University | January 2021 – April 2023

- Responsible for helping students understand and apply concepts from **Python** and **Java** courses with a focus on **OOP**.
- Worked with professors and coworkers to **improve course delivery** using student feedback.

Projects

Autonomous Car – Lane Following System

- Implemented an edge-detection-assisted **deep learning** hybrid model to identify lane boundaries in real time.
- Used traditional optimization and pre-processing techniques in C++/Python using TensorFlow to reduce complexity and improve performance, allowing analysis of live video on embedded SoC controller.
- Incorporated and interpreted open-source C++ vision modules into project and created internal documentation for open-source modules.

StaySafe

- Developed a person-tracker device that used **computer-vision** to track people passing through a doorway to keep count of the number present in a closed space; designed to help reduce the spread of COVID-19 in small indoor spaces.

Skills

- *Languages*: Python, C/C++, Java, Verilog, Linux/Unix Kernel, Windows Command Line, Bash
- *Tools*: Deep Learning (CNN), Computer Vision, TensorFlow/PyTorch, OpenCV, Git, JIRA, TeamCity, BitBucket, Docker, PyTest, Embedded / SoC Dev
- *Leadership*: Skills gained as an Air Cadet Warrant Officer and as a University Teaching Assistant

Accolades

Eric Sigurdson Award – 2020-23, Dean's Honor List recipient –2019-23, J. Lorne Grey Scholarship – 2019

References

Nishanth Gandhi nishanth.gandhi@circlenvi.com – QA Manager at Circle NVI

Cristina Ruiz Martin cristinaruizmartin@sce.carleton.ca – Professor at Carleton University