Vasu Gupta

Edmonton, Alberta 587-974-8657 guptavasu1213@gmail.com guptavasu1213 guptavasu1213

Education

Bachelor of Science- Computer Science   September 2017 - April 2021
MacEwan University, Edmonton, AB   Cumulative GPA: **3.87/4.0**
- Minor in **Business Studies**

Projects

IoT Traffic Surveillance System using Adaptive Video Encoding | Python   April 2020 – August 2020
- Built a **fog computing** architecture to stream surveillance videos from the street cameras to a **Linux**-based cloud server using **Python**.
- Deployed a Traffic Density Measurement algorithm using **Python, OpenCV, and TensorFlow** on the cloud server.
- Designed a protocol for streaming videos using adaptive video encoding that decreases the required network bandwidth by an average of **50 times**.

Puzzle Game for Edmonton Public Library (EPL) | GDScript   January 2020 – March 2020
- Developed a multi-player jigsaw puzzle game using **Godot** game engine with **GDScript** integration for touch screen tables at EPL.
- Facilitated product development and fulfillment by adopting **Agile Scrum** methodology.
- Engaged with the client for gathering requirements to create user stories, milestones, work breakdown structure, and resource allocation.

Work Experience

Research Assistant- Computer Science | Python   May 2020 – August 2020
MacEwan University, Edmonton, AB
- Implemented a **Deep Learning** framework to perform segmentation of the retinal images for glaucoma diagnosis.
- Used Python with **PyTorch and OpenCV** libraries for developing the framework.
- Achieved an overall accuracy of **84%** for the image segmentation network.

Teaching Assistant- Computer Science | Python, C   September 2019 – April 2020
MacEwan University, Edmonton, AB
- Facilitated learning of topics such as Data Structures, Algorithms, Object-Oriented Programming with students of various levels of programming knowledge.
- Provided analogies and visual representation of complex topics to help the students overcome learning barriers.
- Led students by guiding them through the process of problem-solving, debugging, and testing.

Research Assistant- Computer Science | Java   May 2019 – August 2019
MacEwan University, Edmonton, AB
- Developed an android application for the blind to provide visual assistance and collision avoidance by performing object detection.
- Deployed **TensorFlow Lite** as the deep learning framework for on-device inference using Java.

Research Assistant- Organizational Behaviour and Management | Python   December 2018 - June 2019

MacEwan University, Edmonton, AB

- Assisted the professors in performing a literature review on change management within international organizations.
- Reduced work time by **80%** by writing a Python script to automate the distribution of surveys.

Shift Supervisor   April 2018 – Present

Geox, Edmonton, AB

- Supervised nine staff members and trained them when required.
- Performed store opening/closing, bank deposits, and paperwork.
- Conferred with other supervisors to coordinate activities of individual departments.

Sales Associate   September 2017 – April 2018

Geox, Edmonton, AB

- Assisted customers in the selection of merchandise while providing information about the products.
- Maximized store sales by 15% by exceeding monthly sales targets.
- Examined proper item identification, mismatched shoes, internal/external theft, etc.

Volunteer Experience

President   May 2020 - Present

MacEwan Computer Science (MaCS) club

- Plan and execute internal and external club events and activities.
- **Oversee** the preparation and maintenance of the club records, reports, and financial statements.
- Direct and supervise overall operations while **leading** the club meetings.

Student Representative   September 2019 – April 2020

MacEwan Computer Science (MaCS) club

- Assisted in the planning, organization, and communication of events/workshops on campus.

Educator   September 2019 – April 2020

Google IgniteCS

- **Inspired** elementary school, junior high, and high school students to pursue an education in Computer Science by hosting workshops in various Edmonton-based schools.
- Promoted logical and analytical thinking by having workshops based on block-based visual programming tools.

Awards and Recognitions

- Undergraduate Student Research Initiative (USRI) Project Grant (2020) and (2019)
- Dean's Honor List (2019-2020), (2018-2019) and (2017-2018)
- Returning International Student Scholarship (2019-2020), (2018-2019) and (2017-2018)
- International Student Entrance Scholarship (2017)