SAKSHAM KUMAR

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OBJECTIVE

I have a passion for technology and computers, and recent graduate in Computer Eng. major at York university. Confident in a personal environment and with a continuous knack for self-development and progressing forward would make me a great candidate for the opportunity at hand. Currently pursuing embedded systems development for prototyping with FPGA boards and Verilog. Working on UART drivers and communications.

EDUCATION

BACHELORS | MAY 2024 | Lassonde School of Engineering, York University

- Major: Computer Engineering - GPA: 3.8/4.0 – Graduated: First Class

Skills & Abilities

- o HTML (basic)
- o C++
- o Java.
- o MATLAB & R Studio.

- o SQL database & server
- o Python3
- o Digital Logic – System Verilog Language.
- o Cadence Virtuoso (OpAmp designing)

- Highly proficient in using PSpice software for simulations in KiCAD for PCB and analog circuit designing.
- Proficiency in Data analysis (Python) & Automation. Worked with Verilog (VHDL) on EDA playground to make CPU units. Signal Processing (MATLAB)
- 3D design work (Autodesk TinkerCAD). MakerBot (3D print software), VBA. Experience in Lucid chart for flowcharts and diagrams.
- Extensive experience with MS Office, Eclipse, VS code, Word, PowerPoint, Excel, Access, Visio, Outlook, Jira.
- Proficiency in Power apps, Power Automate and PowerBI.

Experience

PROGRAMMER ASSISTANT, CED | YORK UNIVERSITY | 05/2022 – 05/2024

- Managing the Experience York portal for Co-ops and management of the front-end user issues in CED. Performing and troubleshooting any possible errors from the users using the ticketing system. Testing and debugging any new services being added. Automating Tasks and creating and managing power apps-based web apps.

R&D ELECTRICAL ENGINEER STUDENT COOP | ROMET LTD. | 09/2021 - 04/2022

- Worked with prototyping embedded systems and python programming. Worked with the team to facilitate efficient processing of customer specific product requirements, maintaining the current product and resolve technology issue when daily production team meets. Worked on new upcoming projects and C based programs.

VOLUNTEER MENTOR | K2I ACADEMY, LASSONDE SCHOOL OF ENGINEERING | JANUARY 2021 – AUGUST 2021

- Enrolled as a mentor for teaching students of classes 11th and 12th Math and Physics. Responsible for handling a group of students during class times and helping them with the subjects mentioned.

PROJECTS (AVAILABLE ON GITHUB)

- **Embedded Systems**. Arduino with Telegram Bot notification System. Actively notifying the owner of the lock status and user details. Communication of devices done using UART & I2C protocols. Also, created wireless ESP32 data logger on google sheets for recording sensor data.
- **Python projects minigame collections** (Connect4 and Tic-Tac-Toe). Learning with OOP for python and its libraries, can be found on GitHub with source code.
- **Bank account storage and manager**, stores account information on python application and stores on cloud storage database using Azure functions. Azure DB systems used for storage. Source code on GitHub.
- **Crash Detection System using FPGA, (in System Verilog)** created a system that utilizes the DE10 Lite FPGA board to take signals from an ultrasonic sensor placed at the front of a moving object and use the built-in accelerometer readings to determine the speed and whether a crash would take place or not. The system signals using the built-in VGA port to a screen the output to warn the operator of the object to stop. Used UART protocol for communication and used PLL for separate clock.