Shrey Shah

4th Year Electronics Engineering Student & Full Stack Developer

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Core Skills:

Languages: Python, C/C++, JavaScript, ARM Assembly, Bash, SQL, Git

Frontend Technologies: Figma, Electron, React, Redux, Dart/Flutter

Backend and Cloud: Docker, MongoDB, AWS, Cassandra, Google Cloud Platform, GraphQL, Node.js, PostgreSQL

Work Experience:

Mobile Engineering Intern | AdMoreLighting — May 2021 – Aug 2021

- Rearchitected, a new simplified version of an existing internal messaging library with 50% fewer errors.
- Designed and deployed a new FireStore schema and contained nested information in subcollections.
- Deployed a pub/sub Cloud Function trigger in Google Cloud Platform to export a snapshot of collection data.
- Created an end-to-end testing module for unit tests using Dart.
- Developed hardware diagrams, wiring table for electronics testbench platform and uploaded to Jira.

Backend Engineer Intern| General Dynamics Missions Systems – Canada: — April 2020 – Aug 2020

- Designed robust logic for position reporting systems, decreased time for intra-system messages by 60ms.
- Analyzed 600MB of performance data, documented behaviour and made optimizations within the codebase.
- Built and automated, 5 end-to-end test pipelines in both Robot Framework (Python3) and Google Test (C++). Each test case contained over 10 subarea-specific regression tests.

Fullstack Engineer Intern| General Dynamics Missions Systems – Canada: — Sept 2019 – April 2020

- Built scalable product features in C++ and Java, in an Agile development environment.
- Overhauled existing log aggregation system with ELK stack, resulting in reduced error tracking time by 50%.
- Optimized ability to parse over 5GB of logs sent from Logstash by using dynamic templates in Elasticsearch.
- Designed and implemented a sonar systems dashboard with QT GUI (C++), reducing clutter by 30%.

Campus STEM and English Tutor | University of Regina — April 2017 – Aug 2019

- Created a learning environment for students, increasing grades by 18% across a multitude of subjects.

Projects:

Rossler Chaotic Generator |VHDL, Vivado, MATLAB Deep Learning Toolbox

- Replicated an Artificial Neural Network based on Rossler's Chaotic System Generator on FPGA with VHDL.

Iconbite |React.js, Google Firebase, Material-UI

- Built an image repository with modern frameworks like React supported by Material-UI. Includes a scalable NoSQL database via Firebase allows for up-to 10,000 authentications per month and UHD image upload.

Collagify | Python3, Tesseract OCR, OpenCV, PIL

- Leveraged open-source machine learning libraries to search an ingredient list image, clean input data and feed into a image search API to retrieve ingredient-specific images.

Whac-a-mol | ARM Assembly, STM32Fx Development Kit

- Embedded Programming/Computer Architecture Project. Programmed board to play a Whac-A-Mol arcade game with LEDs and buttons. Manipulated GPIO, Stack/Memory Deployment, and Control Structures.

Education:

B.AS Electronics Engineering, Minor in Computer Science| University of Regina — Sept 2016 – Apr 2022

Microelectronics, Computer Networks, Digital Communications, Computer Architecture, FPGA Design, Object-Oriented Programming, Data Structures and Algorithms, Web Development.