

# Shrey Shah

4th Year Electronics  
Engineering Student  
& Full Stack Developer

## 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, GCP, GraphQL, Kafka, Node.js, PostgreSQL, Elasticsearch, Spring Boot

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## Work Experience:

### Mobile Engineering Intern | AdMoreLighting

May 2021 – Aug 2021

- Designed and created hardware layout diagrams, wiring table, and setup for electronics testbench platform.
- Created an asynchronous testing module for unit tests within a specific messaging library, using Dart.

### Intern | General Dynamics Missions Systems – Canada:

#### Backend Software Engineering - Land Systems

April 2020 – Aug 2020

- Designed robust logic for position reporting systems, decreased time for intra-system messages by 60ms.
- Created microservices for reliable data transfer over TCP for distributed system architecture.
- 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.

#### Full Stack Engineering - Underwater Warfare Systems

Sept 2019 – April 2020

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

### Campus STEM and English Tutor | University of Regina

April 2017 – Aug 2019

- Created a learning environment for students, increasing grades by 25% 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.