Muradil **Udun**

3A COMPUTER ENGINEERING · UNIVERSITY OF WATERLOO

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Skills

Languages	C/C++ , Python , JavaScript , Clojure/ClojureScript, HTML/CSS , Kotlin , MySQL, MATLAB , VHDL
Frameworks & Libraries	React, Vue.js, Node.js, Express, Flask, Android, OpenCV
Tools & Technologies	AWS, GCP, Terraform, Docker, Git
Interfaces	Raspberry Pi, Arduino Uno, FPGAs

Work Experience

Oxilight   *Toronto, ON*
SOFTWARE DEVELOPER   *Sept. 2020 - Dec. 2020*

- Single-handedly developed a dashboard web app with data analytic tools to analyze medical measurements using **React**
- Built and tested several features for the company's **Android** apps including a daily routine feature using **Kotlin**
- Implemented video conferencing and logging capabilities for the front facing website with **Jitsi** and **Google Cloud Platform**
- Created and deployed new **API Gateway** endpoints with **AWS Lambda** handlers using **Node.js** to perform various tasks
- Designed **DynamoDB** tables with **DyanmoDB Streams** and **AWS Lambda** to create an event-driven architecture

eSentire   *Waterloo, ON*
SOFTWARE DEVELOPER   *Jan. 2020 - Apr. 2020*

- Developed the next iteration of company's main client interface using **React**, **Clojure**, **EQL**, and a **PostgreSQL** database
- Constructed data rich widgets by analyzing client security data using a graph API built with **Clojure** and **Pathom**
- Implemented a resource server to authenticate users and API calls using **Flask**, **Okta**, and **OpenIDConnect**
- Built a tool to generate tailored powerpoints by manipulating data from a **PostgreSQL** database using **Python** and **Flask**
- Significantly improved deployment process for an internal API by refactoring the project to use **AWS** and **Terraform**

Conrad School of Entrepreneurship and Business   *Waterloo, ON*
ENTREPRENEUR IN TRAINING   *May. 2019 - Aug. 2019*

- Specialized entrepreneurship co-op work program consisting of a 1-week intense **entrepreneurship** bootcamp followed by 2 micro-placements at early-stage start-ups **JUGELO** and **PFERA** for 10 and 5 weeks respectively
- Developed features for company's mobile and web platforms using **Vue.js**, **PHP/Laravel**, **MySQL**, and **Ionic**
- Built a REST API with **Express** to allow clients to efficiently and securely store shipment data in a **NoSQL** database
- Implemented a web application using a **Vue.js** front-end, **Firebase** database, and **Node.js/Express** backend

Projects

Sorting Visualizer
VUE.JS   *Aug. 2019 – Sept. 2019*

- Developed and deployed a static single page application to allow users to visualize various sorting algorithms using **Vue.js**
- Implemented sorting algorithms such as **bubble sort**, **merge sort**, and **insertion sort** to compare algorithm running times
- Built features to control sorted array size and speed to provide multiple scenarios to visualize the various algorithms

Real-time Hand Gesture Detection
PYTHON, OPENCV, KERAS, TENSORFLOW   *Aug. 2019 – Sept. 2019*

- Applied binary image thresholding and morphological transformations on live video using **OpenCV** to allow a neural network to predict various trained hand signs and numbers in real-time
- Built and trained a **convolutional neural network** using **Keras** and a **Tensorflow** backend with up to **99.1% accuracy**
- Produced a dataset of approximately 10,000 grayscale images for neural network training containing unique hand signs

Personal Website
REACT, GATSBY, HTML/CSS   *May. 2019 - Present*

- Developed a single page application from scratch to showcase projects and experience using **React** and **HTML/CSS**
- Implemented a dark/light mode feature and built a custom **UI/UX** using React's component based architecture

Education

University of Waterloo   *Waterloo, ON*
CANDIDATE FOR BACHELOR OF APPLIED SCIENCE IN COMPUTER ENGINEERING   *Sept. 2018 - Present*