

Abdul Haqani

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EDUCATION

UNIVERSITY OF OTTAWA

BSc in Computing Technology &
BASc Biomedical Mechanical
Engineering

COURSEWORK

Computing Courses

Data Structures and Algorithms
Operating Systems
Discrete Mathematics
Advanced Programming Concepts C++
Computer Architecture
Probability and Statistics for Engineers
Programming Paradigms
Operating Systems
Databases

Engineering Courses

Artificial Joint Prosthesis Design
Artificial Organ Design
Biomechanics
Computational Methods for Fluids &
Heat Transfer
Biofluid Mechanics/Fluid Mechanics
Dynamics of Machinery
Machine Design
Control Systems I/II
Mechanical Vibration Analysis
Heat Transfer
Thermodynamics I/II
Bioinstrumentation

SKILLS

Java • Python • C/C++ • HTML •
JavaScript • Ruby/Rails • Full Stack
/ app development • CSS/SCSS •
JSX • PHP • JSON • XML • Jquery •
SQL • AI • Go • Kotlin • MongoDB •
Linux • Engineering Design •
Research • Theoretical Design •
Mathematica • Matlab

FRAMEWORKS AND TOOLS

NodeJS • Express • React • Django •
Ruby on Rails • JSX • Android •
Bootstrap • Semantic-ui •
Materialize-css • Git • Windows •
Linux

Github: <https://github.com/abdulhaqani>

RELEVANT EXPERIENCE

Statistics Canada | Software Developer

January 2019 – April 2020 | Ottawa, ON

- Developed full stack MERN applications for various purposes.
- Developed python Django REST APIs to integrate an existing SQL db.
- Used python to perform data science and analysis for various purposes.

Mercury Scraping | Django freelance project

Developed a full stack app with a Python Django PostgreSQL stack with a colleague that uses web scrapers to pull data from various social medias and perform analytics on it. The data and web scrapers were interfaced with the application to display to the users. The purpose of the application is to allow journalists to send requests for public sentiment data instead of having to manually search for it.

CuHacking Jetbrains Challenge Winner | EcoSNAP Android Kotlin App

Developed an application to satisfy the challenge, using Kotlin in the implementation of the app. The application interfaced with the camera on a phone and sent pictures taken to an image recognition AI that differentiates recyclable elements in the picture. The AI then instructs the user whether the object in the picture is recyclable or not, and it also instructs them how to recycle the specific object. (ex. Batteries recycled differently than cardboard) A leaderboard was also implemented that communicates with a firebase database.

SocialWeb | MERN stack Web Application

Developed a web application that functions as a social media. The app has functionality that allows for new users to register, users to befriend other users, and pictures or text to be shared on their timelines. The application is an express nodejs app, with Reactjs on the front end and Mongodb for the database. Styling was done using materialize-css along with customized styles. The state management was done via the context api with react.

Block Consolidator | Robot Coded Block Organizer

Developed a prototype for a machine which consolidates space autonomously using code. The block consolidator uses a sorting algorithm to first read the array of blocks and their spaces between them, then the machine sorts them in such a way that space is saved for other blocks.

Full Stack Apps | Ruby on Rails

Developed web applications that have full RESTful APIs functionality for the purpose of developing my skills using the framework. Apps varied from; Note taking applications, blog applications, and apps that pull information from APIs, use data to perform analytics and interface with a postgresQL database, among others.

BioBuddy Design Competition 2019 | Event Organizer

Worked with a team of students to organize the 1st ever Biobuddy design Competition held at the University of Ottawa. I was tasked with running the registration for the event, providing mentorship to teams, and acting as one of the event organizers. I also maintained communication with the public, while ensuring competitors understood the competition mandate.