

Abdullah Sumbal

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EDUCATION

MCGILL UNIVERSITY

BS IN SOFTWARE ENGINEERING

Jan 2020 | Montreal, QC

Cum. GPA: 3.64 / 4.0

SCHOLARSHIP AND AWARD

Hugh Brock Scholarship

David Selby SURE Award

COURSE WORK

UNDERGRADUATE

Computer Science

Algorithms & Data Structures

Software Design

Applied Machine Learning

Operating Systems

Artificial Intelligence

Database Systems

Programming Challenges

Software Validation

Mathematics

Probability & Random Signals Linear

Algebra & Geometry

Discrete Structures

Calculus

SKILLS

PROGRAMMING

Proficient

Python • Java • C • Git

Experienced

SQL • C++ • Bash • JavaScript • GIS

• HTML • CSS

Familiar

OCaml • VHDL • \LaTeX

FRAMEWORKS

Flask • Caffe • TensorFlow • Bootstrap

• React • Scikit-learn • QT

OPEN SOURCE

OTHER PROJECTS

github.com

Sprawl Website | Street Network

Sound Monitor | Label Cough time

McGill Tour | Building Path Finder

Squash | Website Game Tracker

Keywords | Website Keyword Finder

Data Analysis | Combi Cell Plotter

MVC | Software Architecture

AR | AR Unity Games

EXPERIENCE & RESEARCH

RESEARCH ASSISTANT | FACULTY OF MEDICINE MAY 2019 - PRESENT

- Developed a prediction model to distinguish between various voice types using Machine Learning algorithms.
- Performed analysis on the impact of voice fatigue on running speech using a neck surface accelerometer.

GIS WEB DEVELOPER | IHSP

JAN 2019 - PRESENT

- Optimized web services performance by 50% for lifesatisfaction.ca using open source technologies.
- Developed a pipeline for generating and hosting vector tiles for current and future projects.

SOFTWARE INTERN | GENERAL ELECTRIC

SEP 2016 - DEC 2017

- Improved team productivity by designing automation tools for regression testing.
- Discovered critical issues by redesigning the database validation system which prevented product recall.
- Developed tools to aid the team in visualizing the communication tree between nodes.

PROJECTS

BATTERY DATA ANALYSIS

PYTHON | PYQT

- Developed data analysis plotting tools for the Chemistry Department at McGill University which will aid in chemical battery research for the next *20 years*.
- Designed an interface which allows data communication between a pH meter and the experiment apparatus.

3D VISUALIZATION OF HUMAN SPINE

PYTHON | PYQT

- Developed a desktop application for rendering the human spine by combining X-Ray, MRI and surface topography to facilitate in surgery.

SPIN BIKE GARDENS

PYTHON | C | JAVASCRIPT | HTML | CSS

- Developed an embedded system by using and programming an Atmega microcontroller to record spin bike user data.
- Built a website and a database to host the collected data.

SSD TRACKER

C++ | CAFFE

- Developed an application to count, detect and track objects in a video stream in real time running at *30 frames/sec* using single shot multi-box detector deep learning algorithm.

SEMESTER SURVIVOR UNITY GAME

C# | UNITY ENGINE

- Developed a web game in Unity as a birthday present for a friend.