

Patrick Huang

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EDUCATION

University of Ottawa. 2018-2020. CGPA: 8.54/10. Expected Graduation: June 2023

BASc in Biomedical Mechanical Engineering

BSc in Computing Technology

Proficient Languages: Python, Java, Javascript, Lua, Arduino, C/C++, MATLAB

Other Technologies: React, ReactNative, Android Studio, SQL, Firebase, MongoDB

PROJECTS

CTO - RentApps. August 2020 - December 2020, <https://github.com/patfire12345/rentapps-frontend>

- Created an android application that attempts to standardize the leasing process
- Developed login system using Node.js and the bcrypt library for password security
- Designed a tenant and landlord interface, where one can send applications to the other
- Made using React Native, Node.js, and the MongoDB database

Software Lead - uOttawa Biobuddy 2020. September 2020 - December 2020

<https://github.com/patfire12345/PawDometer>

- Created an Arduino-based pedometer that is specifically designed for dogs
- Utilized an accelerometer (ADXL 345) and an Arduino Nano to track its steps
- Integrated a bluetooth module using Python to send step-tracking information to the user's phone
- Designed a SolidWorks model to effectively attach the pedometer without strain

Creator - Python Pathfinder Algorithm. August 2020, <https://github.com/patfire12345/Pathfinder>

- Modelled a program that finds the shortest path between a given start and end point
- Implemented Dijkstra's algorithm using pygame module in Python

COMPETITIONS

Hack Western 7. November 2020, <https://github.com/patfire12345/Financial-Buddy>

- Designed a banking application that surveys a user's financial needs and provides feedback
- Implemented an interactive frontend questionnaire and stores user information

uOttawa Engineering Competition. November 2020, <https://github.com/patfire12345/uocfrontend2020>

- Developed a search engine that presents only educational results
- Implemented a frontend search bar that makes HTTP requests to a Google API

EXTRACURRICULARS

VP Technology - uOttawa Engineers Without Borders. <https://github.com/patfire12345/ewbandroidapp>

- Designed a website for the uOttawa Engineers Without Borders website using React.js
- Led the development of the EWB App using Android Studio

CS50: Intro to Game Design Certificate - Harvard. Lua, C# July 2020 - August 2020

- Participated in Harvard quality lectures in order to learn Lua and C#
- Redesigned famous games such as Super Mario Bros and Legend of Zelda from scratch