

William Chu

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Projects

NBA Fantasy Research

oct'20

Reduced draft selection research times by **50%** by developing a **ReactJS** & **Flask** web application which allowed users to compare multiple players advanced statistics; leading to more coherent selections and improved overall teams

Utilized the **BeautifulSoup**, **Pandas** and NBA **web-scraping** libraries to create a data pipeline that processed user queries and aggregated relevant statistics

C\$50 Finance

oct'20

Developed a stock portfolio application using **Flask**, **Bootstrap**, **SQLite3** and IEX API's allowing users to quote, buy and sell mock stocks in real-time

Implemented **CRUD** APIs for the application, allowing user's stock portfolio's to be saved and updated independently

Mental Health Chat Bot

sept'20

Utilized **Facebook APIs** & **Flask** to create a chat bot that provides users a concise and self-administered tool for assessing depression via PHQ-9 health questionnaire, along with user-oriented quotes to motivate and improve mental health

Robotic Labyrinth Solver – 1st Place in Competition

sept – dec'19

Developed an **IOS** and **Arduino** application to successfully control a 6 degrees of freedom platform and complete a ball maze

Integrated an HM-10 Bluetooth chip with a **Swift** app to perform inverse kinematics and continuously send motor angles to an Arduino

Minimized latency between input motion and output orientation to 100ms by manipulating mechanical range of motion and joint types

Experience

Tinymile.ai / Mechanical Engineering

jan – apr'20

Garnered a projected **\$1.5mil** in seed round funding by collaborating with multiple multidisciplinary teams to pioneer the design and manufacturing of an autonomous food delivery robot

Conducted consumer research and behavioural analysis to aid in integrating the idea of a food delivery robot into society resulting in an **80%** increase in customer compliance

Skyjack, Inc. / Manufacturing Engineering

jan – apr'18

Reduced work instruction creation time by 50% with the use of **VBA Excel** macros to improve automated detailed mapping of new product assembly processes and eliminate risk of manual error

Skills

Languages

Python
JavaScript
Java
C
SQL
HTML/CSS

Frameworks

Flask
ReactJS

Cloud/Tools

Git
SQLite3
Ngrok
Heroku
Bootstrap
Pandas

Education

University of Waterloo

BASc, Mechanical Engineering

Graduation: apr'22

Relevant Courses:

MSCI 240: Data Structures & Algorithms (Java)

HarvardX

Certificate: sept'20

CS50x, Introduction to Computer Science

CS50's, Web Programming with Python and JavaScript

Interests

Volleyball
Entrepreneurship
NBA Basketball