Hudson Koyanagi

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SUMMARY

Technical Skills: Java, JavaScript, Python, C, HTML, CSS, Git, SQL, React, ZSH

WORK EXPERIENCE

Mesmerise Software Engineering/Data Science Intern   Jul-Aug 2021
- Designed and implemented virtual reality interior design elements with the software team
- Worked alongside head of the data science team to implement a mood recognition machine learning algorithm in Python

The American School in London IT   Jun-Jul 2021 & 2022
- Responsible for the organisation and re-imaging of nearly a thousand laptops under a team of IT professionals

London Sports Referee/Organizer   2018 & 2021
- Organised and refereed baseball, basketball and flag-football leagues for hundreds of children

PROJECTS

Socket File Server   source code

- A multi-threaded, socket server-client program responsible for file transfers using Java
- Used Java Swing for client side GUI, while server transactions were handled in a separate thread
- Implements a custom linked-list file tree to transfer the server side's file structure to the client as well as an API for GET, POST AND DELETE requests

P2P Pong   source code

- A Multiplayer Pong game which uses Processing as graphics library with simple physics and graphics
- Custom data objects for fast serialization and transfer of game state at a high rate of delivery via a TCP connection using Java sockets

Clean New Tab Extension   source code

- A minimalist replacement for the Chrome new tab page created with React and styled with Bootstrap
- Employs both IndexedDB and Chrome local storage for persistent user-side data
- Features an embedded P5.js script for graphic visuals

Facial Recognition on Raspberry PI   source code

- A team project to implement a facial recognition "security system" in Python with the OpenCV and facial-recognition libraries
- Responsible for a locally hosted MariaDB SQL database for user management and logs, back end file management, facial-recognition optimizations, and GUI integration with tkinter

Personal Website   source code

- A purely CSS and HTML site with reactive visual elements

EDUCATION

2022 - 2027   Candidate for Bachelor of Software Engineering at **The University of Waterloo**