

WINSTON N. TAN

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TECHNICAL SKILLS

Programming Languages: Java, C, C++, Python, HTML/CSS, JavaScript, MATLAB, Assembly, Ruby, Ocaml

Libraries/Frameworks: Node JS, Express, Jupyter, MongoDB, Neo4j, Flask, Pandas/NumPy, Junit, Apache, Ajax, jQuery, Bootstrap

EXPERIENCE

Acclaim Technical Services (ATS)

Full Stack Developer/SWE Intern – Summer 2023

- Collaborated with a team of 3 to create a full-stack web application that significantly streamlined the HR department's candidate management process.
- Utilized Python/Flask and Django to develop and design the RESTful API endpoints allowing communication between front and backend components.
- Incorporated Alchemy.js (open-source graph visualization library) to visualize data as nodes and edges.
- Integrated HTML, CSS, JS, jQuery, and Ajax to create dynamic web pages for data interaction and visualization.
- Developed CSV parser which extracts information to generate Cypher queries for ingestion into Neo4j database.

SWE/Extended Reality (XR/VR) Intern – Summer 2022

- Utilized Flask (Python Library) and RESTful API to help test and develop the backend of a government prototype. Leveraged HTML to develop and update the front-end of the prototype.
- Employed RESTful API methods to ingest data such as coordinates onto a Cesium GIS mapping system.
- Tested pre-released software such as Virtualitics (Advance AI Analytics Tool) to filter out data from large datasets (over 180,000 points) to create a pleasing representation and analysis for the customer.
- Deployed Blender to create a variety of 3D models to ingest into virtual reality worlds.
- Showcased tasks and tools utilized through an interactive VR Presentation (via Spatial) to the ATS Team

PROJECTS

Autonomous OTV Rover, C++, Arduino, Circuit Lab, WIFI Vision System

- Developed an autonomous rover capable of navigating through a course via ultrasonic sensors and a WIFI vision system
- Optimized power output to motors for enhanced course/task completion and navigation
- Lead a team of 7 to build a rover capable of extinguishing and reporting flames using snuffers, flame sensors, WIFI module, and servo motor; budgeted project using Microsoft Excel

Weather Application, HTML/CSS, JavaScript, MongoDB, Node.js, Express, RESTful API

- Developed a weather application that displays weather information based on the city the user inputs
- Used Node.js and Express to develop the server-side(backend) of the application. Express handles HTTP requests and performs specific tasks.
- Integrated Mongo DB to store and manage weather information, allowing users to access their search history
- Implemented RESTful API to retrieve and fetch real-time weather information using an API

Impact of Per Game Stats on NBA Team Success, Python, HTML, NumPy/Pandas, BeautifulSoup

- Gathered and parsed over 9000 data points regarding the top 50 teams from an NBA database. Focused on the top teams between 2010-2020
- Utilized NumPy, Pandas to bring a thorough analysis of a team's success based on their season's statistics

Shell Simulator, C, Makefiles

- Developed the guts of a shell that supports Boolean operations, pipes, and file redirection
- Demonstrated proficiency in C programming by utilizing advanced features such as pointers, input/output redirection, makefiles, threads, and processes

EDUCATION

University of Maryland, College Park

May 2024

Department of Computer Science, Computer Science Major

Robert H. Smith School of Business, General Business Minor

Relevant Coursework: Data Science; Data Structures; Web Application Development; Object-Oriented Programming; Discrete Structures/Mathematics; Computer Systems; Organization of Programming Languages; Algorithms; Calculus I/II; Differential Equations, Applied Probability and Statistics; Physics I/II; Intro to Electrical & Computer Engineering; Digital Logic Design; Engineering Design