Hansin Dwivedi

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EDUCATION

Virginia Commonwealth University Aug 2019 – May 2023 | Richmond, VA
Bachelor of Science., Computer Science
GPA: 3.65/4.00 | Dean's List (multiple Semesters)
Relevant Coursework: Artificial Intelligence, Mobile Programming - IOS, Algorithm Anl W/ADV Data Struc, Intro to OS

PROFESSIONAL EXPERIENCE

Dwivedi, DMD, P.C., Anil Dec 2019 – Apr 2021 | Tysons Corner, VA
Computer Technician

- Implemented and deployed computer systems to facilitate 3D processing for the production of mouth guards and visualization of patient 3D scans.
- Configured a NAS (network attached storage) using Unraid to efficiently and securely store patient data including appointments, 3D scans, and x-rays.
- Maintained 3D printers (resin and filament) for the production of PPE (Personal Protective Equipment) and mouth guards.
- Contributed to the team by managing and repairing computers as needed.

PROJECTS

N-body Simulation Nov 2022
JavaScript

- Developed a JavaScript-based N-body simulation that enables users to interactively place and launch particles in a simulated environment.
- Accurately implemented gravitational force calculations for particles of varying masses in the simulation.
- Facilitated user interaction by allowing the placement of small particles around a large mass and enabling the launch of particles through click-and-drag gestures

Pokémon Card Classifier Dec 2021
Python, PyTorch

- Developed a supervised learning model using the PyTorch library in Python for classifying Pokémon cards by name
- Utilized a convolutional neural network to extract key features from images of cards for feature-based recognition and trained the model on a Pokémon card database sourced from pokemontcg.io

Operating System Simulator Nov 2021
Java

- Implemented a Java-based simulation of an operating system with task generation and three scheduling methods (round robin, priority, and multi-level).
- Integrated critical sections, paging, multithreading, forking, and multi-level parent-child relationships.
- Developed a GUI to add processes and visualize information such as ID, state, cycles, memory, priority, and output.
- Utilized multithreading and multilevel scheduling to efficiently run and manage processes, including communication between processes.

TECHNICAL SKILLS

Languages: Python, Java, C, C#, Swift, SQL, Bash, JavaScript
Frameworks: JUnit, UIKit, GameKit, SpriteKit, Slurm, Oracle Grid Engine, React, NodeJS
Developer Tools: Git, VS Code, PyCharm, IntelliJ, Spack, Anaconda, LinuxBrew
Libraries: PyTorch, OpenCV