Vaibhav Lakshmi Santhanam

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Objective

As a dedicated Computer Science student, I am looking for an opportunity to apply my academic knowledge and further develop my coding skills by working on real-world projects in the information technology field.

Skills

Languages: C, Python, Java, Assembly, HTML, SQL
Tools: Git, Android Studio, Visual Studio Code, Mars, Eclipse
Platforms: Linux/Unix, Windows
Others: Data structures and algorithms, Object Oriented Programming, Operating Systems, Agile (Scrum), GDB, Valgrind

Education

University of Toronto – *Honours Bachelor of Science* September 2021- present
Computer Science Specialist in Software Engineering (Co-op)
Awards: University of Toronto Entrance Scholarship
CGPA:2.96

Projects

System Monitoring Tool with concurrency

- Reports different metrics of the utilization of a given Unix system
- Displays the CPU usage of a given system with graphical representation
- Usage of pipes for communication between the child and parent process
- Entire assignment was coded using C in kernel

Recreating the System-Wide FD Tables

- A Tool to display the tables used by the OS to keep track of open files, assignation of File Descriptors (FD) and processes.
- Allows users to input a specific PID which displays the associated FDs for that process.
- Entire assignment was coded using C in kernel

GRAFFIT

- A simulated social media platform designed using fundamental graph algorithms and data structure to model user interactions and relationships.
- Entire assignment was coded using C

Quad Tree

- Decompose an input image, in a hierarchical fashion- the final set of regions is of squares of uniform color.
- Allows user to input an image of their choice
- Entire assignment was coded using C

Android Application: Prep Well

- Prep Well is a mobile application designed to assist students in their academic journey by creating a planner and also the administrators with course management. It was developed by a team of five using JAVA and XML files on Android Studio to create a seamless experience for users.
- Utilized Firebase Fire store for secure storage of user information, and the Model View Presenter architecture pattern for login and signup pages.
- Performed unit testing and used Mockito. The app was developed using an agile software development methodology with daily scrum meetings to keep us on track and ensure timely delivery.

Be Positive

- Utilized MIPS assembly language and MARS software to successfully develop a 2D rendition of a platform game.
- Demonstrating my ability to work with low level languages
- Game was implemented with features like gravity, moving platforms and objects.