CECILIA MAI

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EDUCATION

University of Texas at Austin   Expected Graduation Date: May 2025
Bachelor of Science in Computer Science
- Data Structures (Java), Computer Architecture (C), Operating Systems (C), Machine Learning (Python), Algorithms, Ethical Hacking, Human Computer Interactions

PROJECTS

WallGenie   February - March 2024
- Collaborated with a team of 4 using JavaScript, React, and CSS to develop a convenient and interactive application providing users with a tool to visualize and plan their living spaces virtually
- Implemented a drag and drop functionality that allows users to dynamically arrange wall decor items
- Designed a sliding carousel interface for seamless navigation between the wall decor inventory and ongoing wall decoration projects

Severe Crash Injury Predictor   December 2023 - February 2024
- Tested and trained on a labeled dataset appropriate for supervised learning to predict whether the driver got a severe injury through the use of feature engineering, cross-validation techniques, and Random Forest Classifier, achieving an 80% accuracy
- Utilized Python libraries including Pandas and NumPy for data manipulation, Scikit-learn for machine learning implementations, and Matplotlib for data visualization

HiBarbie   February 2024
Wics Hackathon
- Created a high-fidelity prototype with Figma with a team of 4 of an app interface that's purpose is designed to create a supportive space for women at UT Austin by providing a platform for users to share accomplishments, aspirations, and networking opportunities within a close-knit community

Pintos   September - November 2023
Operating Systems
Expanded a toy operating system to incorporate advanced features and enhance functionality:
- Implemented priority scheduling, optimizing task execution and improving system performance
- Implemented argument passing on the stack, enabling user programs to execute
- Developed and integrated system calls for user programs, facilitating interaction with the operating system's kernel
- Implemented virtual memory management, enhancing memory utilization and system stability
- Led the conversion of the existing single-threaded contiguous file system to a multi-threaded, multi-level indexed file system, improving file access efficiency and scalability

Huffman Coding   April 2022
Data Structures
- Developed and executed a program to compress and decompress data using Huffman Coding principles in Java by primarily implementing trees, maps, and priority queues

WORK EXPERIENCE

Student Security Coordinator   August 2023 - Present
University Housing and Dining
- Managed lobby and desk areas in the university residence halls independently, contributing to enhanced security measures and reduced rule infractions during night hours
- Proficiently utilized computer programs to streamline security and reporting processes

SKILLS

Technical Skills: Java | C | Python | JavaScript | HTML | CSS | React | Pandas | ScikitLearn | Virtual Box | Kali Linux | Metasploitable | Latex
Language Fluency: Vietnamese (fluent)