

ROHAN LINGALA

rlingala@tamu.edu • 281-253-1608 • <https://www.linkedin.com/in/rohan-l-5a47a1185> • <https://rohanlingala.github.io/>

EDUCATION

Texas A&M University

Bachelor of Science in Computer Engineering
Minor in Cybersecurity and Mathematics
Overall GPA: 3.5

May 2024

Relevant Coursework: Computer Systems and OS, Microcontroller Systems, Computer Architecture, Microelectronics

SKILLS/CERTIFICATIONS

Machine Learning, HTML, CSS, SQL, Javascript, React, Node, Git, Python, Java, C/C++, Linux, ARM v8, Verilog, Multisim, Raspberry Pi, Agile, Azure, Electron, Cryptography, API, Networking, Docker, Server Infrastructure, Bash, Zsh

EXPERIENCE

IT Business Systems Analyst Intern - Honeywell, Houston TX

May 2023 - August 2023

- Participated in design and solution architecture, utilized data driven analytics, and led meetings.
- Organized meetings and groups of people while managing a continuous productive workflow within my team.
- Developed scripts in Python to analyze IT Tickets in order to use an OpenAI model to analyze them.
- Worked on a training plan proof of concept. Communicated internally to determine cost and manpower estimates.
- Aligned with the HPS, UOP, and AM business groups in order to create a standardization to route enhancement tickets.
- Contributed to the Digital Prime project, worked on templated JSON files as well as working with Powershell scripts.

TECHNICAL PROJECTS

Digital Audio Sampler: - Built in HTML, CSS, JS, Python, on a Raspberry Pi.

Oct-Dec 2022

- Created Python functions that manipulate audio in different ways such as slowing, stretching, and pitch manipulation.
- Soldered components together and worked on making sure the wiring hardware was reliable and functional.
- Helped design a 14:5 Multiplexer that fed into an HTML/CSS/JS GUI, which then forwarded inputs to Python scripts.

Single Cycle CPU:- Built in Verilog, using ARMv8 Architecture.

Nov 2022

- Used Verilog to create interconnected components of a Single Cycle (RISC) CPU.
- Tested CPU with ARM v8 machine code, as well as created a test bench for each component.
- GDB and unit tests were used extensively to determine CPU full functionality.

Oscilloscope: - Built in Python, driven on a Raspberry Pi.

Oct 2022

- Created an oscilloscope that can identify waveform shapes and frequency from 1- 50 Hertz and 1-5 Volts.
- Utilized both calculus/differential equations and voltage analysis patterns in order to identify shape and frequency.
- Used hardware devices such as ADC's with software in order to achieve correct timing and accurate precision.

News Headline Machine Learning Analysis: - Built in Google Colab and Jupyter Notebook.

Nov-Dec 2022

- Trained multiple machine learning models on a dataset of news headlines.
- Analyzed results from the models in order to determine sentiment analysis effectiveness with different algorithms.
- Created an IEEE style report regarding the findings of the headline analysis.

Chick-fil-A Kiosk Web App: - Built in React.js. Hosted on Render.

March-May 2023

- Created a fully functional Web application that mimics the functionality of a Chick-fil-A kiosk.
- Utilizes a Node.js backend and SQL database that updates when orders are placed.
- Has both a customer and manager/employee view. In the manager view, inventory and menu items can be modified.

Multithreaded Client/Server Database Model - Built in C/C++, on an Ubuntu Docker Container

July 2022

- Created a program in C++ that queries a server for hospital data regarding individual patients.
- Synchronized threads in order to work in an efficient manner and to query information from a specific patient.
- Spoofed TCP/IP protocol to send data over a network so that information can be sent between terminal instances.

Linux VM Game Server: - Built in Azure, on an Ubuntu 18.0.4 VM.

Jan 2022

- Used crontab to boot a game server automatically on server startup, could remote start server via mobile devices.
- Was able to monitor server statistics such as network traffic and cost metrics.
- Learned the basics of Azure and virtualization through this process.

Personal Website: - Built in HTML, CSS, JS. Hosted on Github Pages.

July-Aug 2023

- Created a static webpage to host information regarding projects and creative work.
- Page is built mostly from scratch, utilizing only Tailwind CSS.
- Showcases different stylesheets depending if the user is on a mobile device or on a desktop computer or laptop.