Joseph Coker

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EDUCATION

Mississippi State University - Bagley College of Engineering

Starkville, MS

Bachelor of Science in Computer Engineering

May 2024

• Cumulative GPA: (3.6/4.0)

· Shackouls Honors College Scholar

Mississippi State University – Bagley College of Engineering

Starkville, MS

Master of Science in Computer Engineering

December 2024

WORK EXPERIENCE

United States Army Corps of Engineers – GIS

Vicksburg, MS June 2023 - Present

Engineering Technician

Utilized machine learning to create a process for identifying damaged houses via drone.

• Monitored over 30 Dams and Levees through generating web scraping scripts.

• Wrote scripts to automate common processes such as quarterly updates of maps spanning various departments.

Mississippi State University

Starkville, MS

Research Assistant

March 2022 – *August* 2022

- Collected texture and spectra data of various foods to train a machine learning algorithm to sort foods according to their quality and identify any defects or abnormalities.
- Constructed specialized hardware from the ground up to collect volumetric data on sweet potatoes. That data was used to train a machine-learning algorithm to detect abnormalities on the skin of sweet potatoes.
- Built a black box for hyperspectral data collection. Collected data from various foods to detect quality and defects.

Freight Waves

Chattanooga, TN

Software Development Intern

January 2020 – March 2020

- Self-taught web scraping with Python and scraped data from multiple truck reseller websites to create a database of trucks that could be easily combed through to find what the clients needed.
- After successfully implementing the web scraping script, expanded the program to cover more products.
- Final database was comprised of over 50,000 entries and imported into an easily readable Excel format that was integrated into proprietary software

Projects

Media Automation Server

August 2020- Present

Administrator

- Unraid (Linux based) server for media compression and customization.
- Created YAML files for Plex Meta Manager API integration for poster automation and seasonal collections.
- Utilized Docker and GitHub to pull and customize operations for common processes.
- Over 99% uptime over 18 TB array with data redundancy.

ADDITIONAL INFORMATION & SKILLSETS

Hardware: Raspberry Pi, Arduino, FPGAs, Microcontrollers, Computer Architecture

<u>Software</u>: VSCode, Anaconda, GitHub, Docker, MATLAB, Xilinx Vivado, ARCGIS, TensorFlow <u>Programming Languages</u>: Python, C/C++, Assembly, Verilog/System Verilog, CSS/HTML

Awards & Recognitions: MSU Academic Excellence Scholarship Recipient, MSU Design Award,

Hanes Growth to Potential Award, Eagle Scout

Interests: Personal Server Management, Car Enthusiast, Culinary Arts



https://github.com/jpcoker3