Sri Sai Naga Venkata Adithya Swarna

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Education

UNIVERSITY OF CALIFORNIA, RIVERSIDE   Riverside, California, USA
Master of Science in Computer Engineering   Expected Graduation**: December 2024**
3.9/4.0

INSTITUTE OF AERONAUTICAL ENGINEERING   Hyderabad, Telangana, India
Bachelor of Technology in Electronics and Communication Engineering   **September 2020**
8.48 with First Class Distinction

Skills

Technical: Python, Selenium, C/C++, Java, PLSQL, HTML, CSS, Fast Formulas, VHDL, CUDA C, ML Libraries.
Software & Hardware Tools: GIT, MS Office, Oracle HCM, Cadence, Arduino, Lab VIEW, MATLAB, Proteus.
Operating Systems: Windows, Mac, Linux.

Projects

Conway's Game of Life project using GPU
- Achieved up to 40x speedup after implementing game of life on GPU using Numba compared to serial CPU code.
- Designed & developed parallel algorithm to update game state by mapping grid cells to CUDA thread blocks for concurrent execution on GPU. Profiled & optimized kernel configuration, block size, grid shape to maximize GPU utilization & achieved high performance.
- Visualized game state evolution over generations by plotting matrices using Matplotlib animations.

Full Swing 8x8 XOR Content Addressable Memory (Published a IEEE Conference Paper)
- Published a paper on Content Addressable Memory (CAM) design at IEEE INOCON 2020 as lead author.
- Designed & validated high performance CAM architecture using advanced modeling & simulation.
- Developed robust 8x8 SRAM array with optimized memory cell design for integrated storage in CAM.
- Leveraged SRAM array for fast, reliable storage to enable sub-20ns search time in CAM.

SpaceX Falcon 9 Landing Prediction
- Performed EDA on SpaceX launch data using Python, SQL; built interactive Matplotlib, Folium map & Plotly dashboard to visualize key metrics.
- Trained classification models including Logistic Regression, SVM, Decision Trees using Scikit-Learn.
- Achieved 87% accuracy in predicting successful rocket landing outcomes with Decision Tree model. Identified optimal launch sites & payload mass ranges for highest success rate through analysis.

Stock Market Data Analysis Projects
- Extracted financial data with yfinance and Beautiful Soup, processed with Pandas/NumPy, and analyzed large historical stock datasets.
- Performed EDA on stock, housing & airline performance datasets using Python; identified trends & relationships between attributes through statistical analysis & data visualizations. Visualized key metrics with Plotly.

EXPERIENCE

Tata Consultancy Services (TCS)   Hyderabad, Telangana, India
Systems Engineer – Oracle HCM Techno Functional Developer   **January 2021 – July 2023** (2 Years 7 Months)
- Configured & implemented HCM modules (Core HR, Absence Management, & Time and Labor) through development, customization & integration enabling successful migration & reduced implementation time.
- Provided L2 & L3 support for HCM Cloud & documenting knowledge base, improving uptime & turnaround time.
- Conducted virtual training & demos for end users by creating materials & giving presentations, ensuring successful adoption & increased productivity.
- Consistently delivered under tight deadlines & swiftly adapted to changing requirements; earned multiple commendations & promotion from Assistant to Systems Engineer.

CERTIFICATIONS

Algorithms (Udemy - In Progress), **IBM Data Science on Coursera, Programming for Everybody, Python Data Structures, Using Python to Access Web Data, Using Databases with Python.**

OTHER ACTIVITIES

1. Developed automation scripts using **Python & Selenium** to perform web scraping & system tasks including verifying receipt of TCS offer letter.
2. Built web scraper to extract data, stored in MongoDB on AWS (Elastic-bean), and displayed through Flask site.
3. Developed a hardware-software system to detect LPG gas leakage & alert authorities using GSM technology **(IOT)**.