Manoj Virinchi Chitta

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EDUCATION

University of Florida Gainesville, FL

Master of Science in Computer Science CGPA: 3.9/4

Aug. 2023 - May. 2025

Courses: Analysis of Algorithms, Advanced Data Structures, Distributed Operating System and principles, Computer Networks, Computer Vision, Natural Language Processing, Data Engineering, Introduction to Data Science

EXPERIENCE

Software Engineer Jun. 2022 – Jul. 2023

Deloitte USI

Hyderabad, India

- Acquired professional certifications in UiPath and Power Automate following rigorous training on Udemy, demonstrating an advanced mastery
 of automation tools. This achievement significantly improved workflow management efficiency by 30%.
- Developed and coded custom automation solutions for system solutions development and debugging, aligned with banking client needs, resulting in a 60% reduction in execution time and an 80% decrease in manual system analyses on **Virtual Machines**, significantly improving cost-effectiveness and operational efficiency.
- Designed and implemented advanced automated solutions within SAP environments, streamlining intricate processes and reducing execution time by 60%, leading to substantial cost savings.
- Conducted unit testing, debugging, and peer code reviews, ensuring defect-free programming in line with client specifications.

Internship

Jan. 2022 – May. 2022

Deloitte USI

Hyderabad, India

- Developed pipelines for multiple workflows using **Azure DevOps**, aiding diverse teams in project transition from the development environment to a higher environment and reduced the effort by 20% leading to faster delivery.
- Created and distributed a strategic survey for Deloitte teams, enhancing data collection and analysis proficiency and resulting in a 30% increase in actionable insights for workflow migration needs.
- Secured a 90% score on the AZ-900 certification, showcasing enhanced proficiency in cloud technology and engineering robust cloud service solutions.

PROJECTS

 $\textbf{InciSense} \mid \textit{Python}, \textit{SQLite}, \textit{SpaCy}, \textit{NLTK}, \textit{Gradio}$

Aug. 2024 – Oct. 2024

- Developed InciSense, a system to extract and store incident data from police department PDFs into a **SQLite** database, achieving 90% accuracy in capturing critical incident details.
- Built a customizable redaction tool using **SpaCy** and **NLTK** to censor sensitive information (e.g., names, dates, addresses, concepts) in public documents, reducing manual processing by 60%.
- Enhanced the project by adding a web-based interface to visualize incident data with three key visualizations: clustering of records, comparative bar graphs, and a custom chart using **Gradio,Matplot** and **Seaborn**, improving data interpretability and insights by 50%.

Impact of Attention Mechanism on Question Answering in Transformers | Bert, LSTM

Feb. 2024 – May. 2024

- Co-authored and researched the impact of attention mechanisms in **BERT**, optimizing attention heads to achieve a 20% improvement in question-answering accuracy, showcasing expertise in natural language processing.
- Executed a comparative analysis utilizing the SQuAD v2.0 dataset, illustrating that fine-tuning attention mechanisms boost performance by 15% before overfitting, Demonstrating expertise in machine learning and model optimization.
- Executed comprehensive unit testing and debugging to ensure reliable outcomes.

Gator Library Management System | Java, Red-Black Tree, Min-Heap

Oct. 2023 – Nov. 2023

- Achieved 95% operational efficiency by implementing a **Red-Black Tree** to manage over 1,000 book operations with logarithmic complexity.
- Prioritized patron reservations using a **Min-Heap**, reducing reservation processing time by 50% and enhancing system responsiveness.
- Automated file-based input/output, handling 100% of library tasks with zero runtime errors, leading to a 40% improvement in workflow
 efficiency.

Comprehensive Aquaculture Management System | HTML, CSS, JavaScript, PHP, SQLite

Jun. 2024 – Jul. 2024

- Designed and implemented a web-based aquaculture management system, improving operational efficiency by 40% through real-time data processing and resource tracking.
- Enhanced user experience with a responsive design and interactive UI elements, increasing engagement and usability by 30%.
- Integrated advanced filtering features using a date range picker, reducing manual data sorting efforts by 50%.

TECHNICAL SKILLS

Languages: Java, Python, C/C++, SQL (Postgres), JavaScript, R,HTML, CSS, PHP

Frameworks: React, Node.js, Flask, Bootstrap, Streamlit, Gradio

Developer Tools: Git, Docker, Microsoft Azure, Google Cloud Platform, AWS, Visual Studio, Power Automate, UiPath, Azure DevOps,

MongoDB, Firebase, Hadoop, SQLite3

Libraries: pandas, NumPy, Matplotlib, Pytorch, Scikit-Learn, Beautiful Soup, NLTK, SpaCy, Langchain

Testing Framework: JUnit, Mockito **Other tools**: RDP, Virtual Box, Star UML