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

InciSense | *Python, SQLite, SpaCy,NLTK* *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%.

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.

PDF Query System with AWS Bedrock | *Python, Streamlit, Boto3, Langchain* *Jun. 2024 – Jul. 2024*

- Implemented a PDF query system using AWS Bedrock, enhancing document retrieval accuracy by 50% with **Titan Embeddings** and **Meta Llama2** models.
- Developed a robust data ingestion pipeline utilizing PyPDFDirectoryLoader and RecursiveCharacterTextSplitter for efficient processing and comprehensive data coverage. Implemented **FAISS** vector store to optimize document indexing and retrieval, enhancing efficiency and scalability significantly.
- Built a user-friendly **Streamlit** interface, increasing user engagement and accessibility by 30%.

Facial Emotion Recognition | *OpenCV, NumPy, Keras, TensorFlow* *Feb. 2021 – Jun. 2021*

- Implemented a **Convolutional Neural Network** (CNN) architecture, integrating the model with the laptop's camera module, resulting in a 30% reduction in image processing latency for real-time applications.
- Applied peer code reviews, extensive testing, and debugging, ensuring defect-free code and high reliability.

TECHNICAL SKILLS

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

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, BeautifulSoup, NLTK,SpaCy,Langchain