Chethana Thondebhavi Shantha Kumar

chethana1681@gmail.com | +1(520)312-6307 Chethana-16 | Chethana T S Portfolio

Objective

Data Science professional with expertise in Generative AI, Deep Learning, Data Visualization, and Predictive Modeling. Skilled in Data Analysis, Statistical Modeling, and ML algorithms, with hands-on experience using AWS, GCP, and Azure for scalable AI solutions. Passionate about leveraging data-driven insights and AI to drive innovation and decision-making.

Education

University of Arizona Expected graduation date: May 2025

Masters in Data Science

Relevant Courses: Data Analysis and Visualization, Data Mining, AI, Advanced ML, Neural Networks, NLP, SQL database, Data Warehousing.

Dayanada Sagar Academy Of Technology and Management, Affiliated to Visvesvaraya Technological University Graduated on:May 2023

BE in Computer Science Engineering

Relevant Courses: Big Data Analytics, C, Python, DBMS, Wed development, Databases, Data Mining and Warehousing, Cloud Computing

Skills & Certifications

Skills: Python, SQL, R programming, AWS SageMaker, TensorFlow, PyTorch, AWS Glue, Redshift, Textract, Power BI, Tableau, Data Analysis, Data

Certifications: AWS-Cloud Foundation, Business Analytics training, Google Data Analytics professional

Experience

Center for Digital Humanities, University of Arizona Jul. 2024-Current

Graduate Assistant **Python, Unreal Engine, Android Development, LLM, XR development, Gen AI**

- Spearheaded the design and implementation of MetaHuman virtual patients through Generative AI and Unreal Engine, resulting in a 40% increase in training efficiency for medical students.
- Developed and launched AR/VR educational modules that improved user engagement rates by 25%, reaching an audience of more than 500 participants in interactive simulations over one academic year.
- Enhanced robotic systems by integrating Open-AI assistants, improving interaction capabilities by 30%, serving diverse research projects.

Force for Health Network Sep. 2024- Dec. 2024

Associate Data Science Intern **Tableau, Power-BI, Python, Data Analysis, Data Visualization, API Integration**

- Created interactive dashboards utilizing Tableau and Power BI to visualize key health, economic, and employment metrics leading to a 40% improvement in stakeholder decision-making speed across three departments.
- Implemented data pipelines workflows integrating real-time APIs and cloud-based ETL workflows including Structured and Unstructured data, resulting in a 50% increase in data processing speed.
- Developed an automated chatbot solution that increased user engagement by 60%, successfully addressing over 1,500 inquiries monthly and significantly improving customer satisfaction.

VSI lab, University of Arizona Jul. 2024-Current

Computer Vision Engineer **Python, Deep learning, Neural Networks, LLM**

- Spearheaded the development of self-supervised image segmentation algorithms using U-Net, Mamba, and ConvNeXt, achieving a 30% improvement in segmentation accuracy across diverse datasets, contributing to enhanced performance in medical imaging applications.
- Drove the implementation of Fourier-based neural networks for image inpainting, reducing processing time by 40% while maintaining high-fidelity results, thereby increasing productivity and enabling real-time applications in digital media.
- Innovated an LLM-powered SAM model for analyzing cataract surgery videos, resulting in a 25% increase in diagnostic efficiency and producing actionable insights from over 10,000 surgical recordings to inform best practices within the ophthalmology field.

Hearthealth Technologies Private Limited Oct. 2022-May. 2023

AI and ML Intern **Python, Deep Learning, Neural Networks**

- Spearheaded the development of advanced image segmentation models using Fully Convolutional Neural Networks, enhancing diagnostic accuracy by 30% in the OneCardio Healthcare Application, which directly contributed to improving patient outcomes in over 10,000 cases.
- Collaborated on a team that produced three peer-reviewed research publications, showcasing innovative methodologies and breakthroughs in healthcare technology; facilitated workshops that increased team understanding of deep learning concepts by 40%.
- Streamlined data accuracy management processes by implementing rigorous validation techniques, resulting 25% reduction in errors within the datasets used for training AI models, leading to improved interdepartmental collaboration with a satisfaction rate exceeding 85%.

Projects

Sentiment Analysis May. 2024

Analysing Emotional Dynamics of Social Media **Python**

- Developed LSTM networks achieving 99.61% training accuracy and 88.2% test accuracy for classifying emotions in tweets.
- Implemented dropout layers to enhance real-time emotion detection, mitigating overfitting and improving model reliability and, achieved an average loss of 0.0097 and validation accuracy of 89.25%, demonstrating robust emotion classification.

Alien Encounters Oct. 2023

Visualization of UFO Sightings around the world **R, HTML, CSS, JavaScript**

- Managed a comprehensive data analysis project on UFO sightings, employing ggplot for interactive visualizations, which substantially increased public engagement and provided new insights into sighting trends.
- Created interactive and informative plots to show the number of UFO sightings on the world map and how the trends vary over the years.

World happiness report Dec. 2023

A journey through world happiness:) **R, HTML, CSS, JavaScript**

- Created an interactive Shiny Web App to distill the complex data of the World Happiness Report into user-friendly visuals, significantly boosting user interaction and insight into global happiness trends.

NLP Statistics and web scrapping **Python, HTML, CSS, JavaScript** Dec. 2023

- Developed a sophisticated web application for NLP statistics comparison, enhancing data depth and accuracy, which greatly improved content strategies for health information dissemination.