LEELA SRIJA ALLA

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EDUCATION

- **University at Buffalo (SUNY)** - *(2023 - 2024)* *Masters in Computer Science (AI/ML track)* CGPA: ***3.75/4.0***
  Courses: Operating Systems, Computer Security, Analysis of Algorithms, Machine Learning, Deep Learning, Natural Language Processing, Data Models Query Languages, Data Intensive Computing, Computer Vision
- **University of Hyderabad** - *(2017 - 2022)* *Integrated Masters in Technology, Computer Science* CGPA: ***3.39/4.0***
  Publication: *Opinion Maximization in Signed Social Networks Using Centrality Measures and Clustering Techniques*
  Honor: *Best Student Paper at 19th International Conference on Distributed Computing and Intelligent Technology 2023*

WORK EXPERIENCE

SOFTWARE ENGINEER, One Convergence Devices Pvt Ltd, Hyderabad *(Aug 2022 - Apr 2023)*
- Streamlined DKube's user experience by designing a user-friendly interface with **ReactJS**, resulting in a significant **9%** decrease in total integration time for model deployment.
- Built **CI/CD** pipelines, aligned with **Agile** methodologies, on **Jenkins**, enabling automated building of **Docker** images, making zero-downtime deployments of DKube's microservices to **Kubernetes** clusters.
- Employed monitoring and logging solutions (e.g., **Prometheus**, **Grafana**) for proactive issue identification.

FULL STACK WEB DEVELOPER (Intern), Jindal Trading Co., Delhi *(Oct 2020 - Dec 2020)*
- Spearheaded the development of an E-Commerce website during the COVID to streamline new user onboarding using **ReactJS** and **MongoDB** database on backend, catalyzing a remarkable traffic upswing from **140 to 170 daily visitors** and contributing to a 15% increase in overall sales.
- Led a team of **4 members** and successfully drove business growth by recruiting potential candidates to take over.

RESEARCH ASSISTANT, University of Hyderabad, Telangana *(Sep 2021 - May 2022)*
- Worked under Dr. Anjeneya Swami on opinion maximization and influence maximization problems in social networks and aided the professor in teaching the course **Graph Theory**.
- Implemented **diffusion models** like linear threshold, studied seed selection techniques using centrality measures, and conducted extensive experimentation with different heuristic algorithms on real-world and synthetic datasets.

TECHNICAL SKILLS

Languages: C, C++, Java, Python, JavaScript, React JS, Node.js, PHP, HTML, CSS, Ruby on Rails, Shell Scripting
Frameworks: TensorFlow, Data Mining, Flask, Scikit-learn, NetworkX, OpenCV, Keras, PyTorch, Hadoop, Langchain
Database Management: MySQL, MongoDB, PostgreSQL, Pinecone
Technologies/Environments: Unix/Linux, Windows, CI/CD, Docker, Agile, Kubernetes, Git, Latex, Tableau, Microsoft Suite

PROJECTS

Textual Entailment in Clinical Trial Data - PyTorch, NLP, Hugging Face *(Mar 2024 - May 2024)*
- Multi-evidence Natural Language Inference using Clinical Trial Reports (CTRs) on breast cancer treatments using **NLI4CT** dataset and achieved an F1 Score of **72.34**.
- Finetuned **DeBERTa-v3** model on Numerical reasoning for LLMs, implemented Sebis Pipeline Model. The model retrieves evidence sentences and predicts inference. Experimented with different **LLMs** pre-trained on Biomedical NLI like **BioBERT**.

Elective Genie - Python, Langchain, Hugging face, Pinecone, streamlit *(Feb 2024 - Mar 2024)*
- Engineered a **Retrieval-Augmented Generative(RAG)** AI to assist University at Buffalo students with academic planning.
- Leveraged **LangChain** and **Pinecone** to create a vector database. Retrieval system indexes relevant curriculum data for any student question and feeds results through **Hugging faces meta-llama Llama-2-7b-chat-hf**.

Coloring Black & White Images - PyTorch, GAN *(Dec 2023 - Feb 2024)*
- Constructed a **conditional Generative Adversarial Networks(GAN)** backed by **ResNet** to predict the colors using images from the COCO dataset.
- Implemented supervised training on **U-Net** as a generator and achieved a **11%** improvement in **image segmentation** accuracy.

Crime Analysis in Los Angeles - Scikit learn, Pandas, Flask, ReactJS *(Sep 2023 - Dec 2023)*
- Performed **Exploratory Data Analysis(EDA)** on the Los Angeles Crime Dataset.
- Fine-tuned machine learning models like **logistic regression**, **Random Forest**, **KNN**, and **K-means** clustering to classify crime types and identify hotspots. Optimized models for interpretability and performance.
- Deployed and hosted a highly-available **ReactJS** website with **flask** APIs using **AWS EC2**.

Pen Ink Differentiation for Handwritten Document Forensics - OpenCV, Keras, TensorFlow, CNNs *(Jan 2021 – May 2021)*
- Designed a model to detect different pen inks in handwritten documents using CNNs.
- Utilized different state-of-the-art models to detect fraudulence bank cheques with an accuracy of 94%.
- Optimized the model with image processing techniques to ensure high accuracy and reliability.

Vehicle Collision Detection and Alcohol Detection System - Arduino, IoT sensors *(Jun 2019 – Jul 2019)*
- Constructed a prototype to predict vehicle collisions and alcohol consumption by exploring different solutions using the **Internet of Things**.
- Achieved a 61% accuracy in predicting vehicle collisions and 89% in alcohol consumption using IoT sensors.