LEELA SRIJA ALLA

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EDUCATION

University at Buffalo (SUNY) *(2023 - 2025)*	Masters in Computer Science (AI/ML track)	CGPA: ***3.83/4.0***
University of Hyderabad *(2017 - 2022)*	Integrated Masters in Technology, Computer Science	CGPA: ***3.39/4.0***

WORK EXPERIENCE

SOFTWARE ENGINEER, One Convergence Devices Pvt Ltd, Hyderabad *(Aug 2022 - Apr 2023)*

- Streamlined DKube's user experience by architecting a user-friendly interface with **ReactJS**, resulting in a significant 9% decrease in total integration time for model deployment.
- Crafted a robust **CI/CD** pipelines, aligned with **Agile** methodologies, leveraging **Jenkins** for automation, enabling automated building of **Docker** images, running unit and integration tests through Kubernetes agents, and 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 **40 to 70 daily visitors** and contributing to a 15% increase in overall sales.
- Harnessed advanced **Search Engine Optimization (SEO)** strategies to fortify website performance, resulting in a **22%** boost in conversion rates.
- Led a team of 4 members and successfully contributed to driving 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**.
- Formulated heuristic algorithms using centrality measures and community detection for identifying influential seed nodes in signed networks.
- Implemented **diffusion models** like linear threshold and studied seed selection techniques leveraging network topology, conducted extensive experimentation 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, Microsoft Suite

PROJECTS

Elective Genie - Python, Langchain, Hugging face, Pinecone, streamlit *(Feb 2023 - Present)*

- Engineered a **Retrieval-Augmented Generative(RAG)** AI to assist University at Buffalo students with academic planning.
- Leveraged **LangChain** and **Pinecone** to encode course data into semantic vectors, build a vector database using embeddings created by sentence transformer model, and enable efficient semantic search to retrieve relevant curriculum information.
- Retrieval system indexes relevant curriculum data for any student question and feeds top results through **Hugging faces meta-llama Llama-2-7b-chat-hf** LLM.

Coloring Black & White Images - PyTorch, GAN *(Dec 2023 - Feb 2023)*

- 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 **EDA** and cleaning 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 **Convolutional Neural Networks (CNN)**.
- 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.

PUBLICATION

- Alla, Leela Srija, and Anjeneya Swami Kare. "Opinion Maximization in Signed Social Networks Using Centrality Measures and Clustering Techniques." Distributed Computing and Intelligent Technology: 19th International Conference, ICDCIT 2023, Bhubaneswar, India, January 18–22, 2023, Proceedings. Cham: Springer Nature Switzerland, 2023.
- **Honor:** *Best Student Paper at 19th International Conference on Distributed Computing and Intelligent Technology 2023*