S Krishna Niveditha

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Education

University of Florida, Gainesville **Aug 2025 – May 2027**
Master of Science, Computer Engineering

National Institute of Technology, Calicut **Aug 2018 – May 2022**
Bachelor of Technology, Electrical and Electronics Engineering, CGPA: 3.73

Experience

University of Florida **Sep 2025 – Present**
Graduate Student Researcher *Gainesville, Florida*

- Curated datasets and evaluated 10k+ child speech samples with PyTorch; benchmarked differential voice privacy algorithms, improved EER by 10%, adding protection against ASR systems at the Human Computer Interaction Lab.
- Leveraged HPC clusters and parallelized ML training pipelines, achieving a 40% reduction in model training time.

GE HealthCare **Jun 2024 – Aug 2025**
Systems Engineer – Deep Learning *Bengaluru, India*

- Trained and optimized production-ready deterministic deep learning models in TensorFlow to power AI-assisted automatic slice prescription (AIRx) feature for prostate MRI, enabling scans 4× faster with 5× fewer user interactions.
- Automated end-to-end data ingestion to S3, enabling scalable model training and evaluation and fine-tuned model training parameters, boosting DICE score to 85% and delivering fast (<1s) inference with OpenVINO.
- Involved in the API design and development of the AIRx feature, translating geometrical logic prototyped in python into C++ microservices. Implemented test-driven development, achieving 90% code coverage.

GE HealthCare **Aug 2022 – May 2024**
Engineer – Edison Engineering Development Programme (EEDP) *Bengaluru, India*

- Developed GPT and BERT-based solutions for clinical report parsing and synthetic clinical text generation; applied Named Entity Recognition (NER) to 5,000+ reports, reducing manual annotation by 5 hours per week.
- Built an orchestrator to perform ETL for patient data transfer, replacing legacy Node-RED pipelines with AWS Step Functions and CloudFormation; integrated API Gateway, S3, RDS, Lambda, and CloudWatch, reducing transfer latency by 20% and enabling enhanced scheduling and triggering control.
- Optimized C++ and Spring Boot microservices algorithms to reduce AIRx brain and knee scan times by 5% through adjustment of scan parameters and protocols, while maintaining optimal signal-to-noise ratio (SNR).

Enzen Global Solutions Pvt Ltd **May 2021 – Jun 2021**
Summer Intern *Remote, India*

- Modeled, simulated, and debugged 20+ solar PV–integrated smart grid networks using ETAP and MATLAB; performed load flow and harmonic analyses for compliance insights.

Projects

AgriConnect Crop Prediction — *TypeScript, React, Gemini API, GCP, Vercel* **Oct 2025**

- Built an agentic crop prediction platform with React and TypeScript, integrating geocoding, Google Maps API, Google Grounding API, and Gemini AI APIs to provide location-aware crop and yield forecasts in real time; deployed via Vercel.

Prompt-Driven AI Workflow Builder — *TypeScript, Claude, FireCrawl, Vercel* **Nov 2025**

- Enhanced Open Agent Builder (FireCrawlDev) with a prompt-based automation layer on its visual canvas, allowing users to generate and deploy AI agent workflows instantly. Powered by Anthropic Cloud and Firecrawl APIs, it streamlined workflow creation, cutting setup time by over 70%.

Technical Skills

Languages: Python, C++, Java, SQL

Tools: Git, Rally, Confluence, Jira, Cursor, Claude Code

Web: HTML, CSS, Node.js, TypeScript, Spring Boot, Flask, React

Databases: MySQL, MongoDB, Supabase

DevOps: Docker, Kubernetes, Jenkins, JFrog Artifactory

AWS: S3, EC2, Lambda, CloudFormation, RDS, CloudWatch

Libraries: TensorFlow, PyTorch, Scikit-learn, Pandas, NumPy, Keras

Leadership and Achievements

- Presented paper *"Optimal Glideslope Guidance Algorithm Development for Space Station Rendezvous"* at NCMDAO 2022, IIT Bombay.
- Organized *Infinitum19*, an inter-school Mathematical Aptitude Test with 10,000+ participants as Assistant Secretary, Club Mathematica, NIT Calicut.