

# S KRISHNA NIVEDITHA

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## Education

### University of Florida, Gainesville

*Master of Science in Computer Engineering*

**Aug 2025 – May 2027**

**Coursework:** Analysis of Algorithms, Advanced Data Structures, Data Science

### National Institute of Technology, Calicut

*Bachelor of Technology, Electrical and Electronics Engineering*

**Aug 2018 – May 2022**

*CGPA: 3.73*

## Experience

### General Electric HealthCare

*System's Engineer – Deep Learning*

**Jun 2024 – Aug 2025**

*Bengaluru, India*

- Contributed to the API design and technical review of AIRx, an AI-driven prostate MRI slice prescription tool, enabling 4x faster scans with 5x fewer user interactions.
- Translated geometrical logic prototyped in python into C++ microservices, improving throughput by 2.5x and reducing API latency by 20% through asynchronous processing and optimization.
- Implemented unit and integration tests in a CMake-based CI/CD pipeline using Jenkins, enabling automated builds and deployments.
- Developed a Flask service for data ingestion and retrieval from AWS S3 to accelerate ML pipeline workflows, improving data processing efficiency by 30%.

### General Electric HealthCare

*Engineer – Edison Engineering Development Programme (EEDP)*

**Aug 2022 – May 2024**

*Bengaluru, India*

- Built an orchestrator to perform ETL for patient data transfer, replacing legacy Node-RED pipelines with AWS Step Functions and CloudFormation for advanced scheduling and triggering controls.
- Integrated AWS services – API Gateway, S3, RDS, Lambda and CloudWatch within the orchestrator and reduced transfer latency by 16%.
- Trained and fine-tuned deterministic deep learning models in TensorFlow, achieving 85% DICE score and subsecond inference with OpenVINO optimization.

### University of Florida

*Graduate Student Researcher*

**Sep 2025 – Present**

*Gainesville, Florida*

- Built and benchmarked differential voice-privacy algorithms in Python using PyTorch on HPC clusters, processed 10,000+ speech samples, and improved evaluation efficiency.

## Technical Skills

**Programming:** Python, C++, Java, SQL

**Machine Learning:** TensorFlow, PyTorch, LLMs, Scikit-learn, NumPy, Pandas, Matplotlib

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

**Cloud & DevOps:** AWS, GCP, Docker, Kubernetes, Jenkins, CI/CD, JFrog Artifactory

**Databases:** MySQL, MongoDB

**Tools** Git, Linux, HPC

## Projects

### Prompt-Driven AI Workflow Builder — *Node.js, Open AI, FireCrawl, Vercel*

**Nov 2025**

- Enhanced Open Agent Builder by FireCrawlDev with a prompt-based automation layer on its visual canvas, allowing users to generate multi-agent workflows instantly with natural language queries.
- Implemented RESTful endpoints for Open AI API integration, automating node creation to cut setup time by 70%.

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

**Oct 2025**

- Built and deployed a crop prediction Node.js application at *Gator Hacks 4.0* enabling users to receive location-specific crop and yield forecasts in real-time for data-driven agricultural decision-making.
- Integrated Google Grounding, Maps APIs, to deliver an interactive React UI with geospatial visualizations.

## Leadership and Achievements

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