MURALI KRISHNA MADDINENI

Atlanta, GA • +1 (470) 478-4859 • mmaddineni1@student.gsu.edu • <u>LinkedIn</u> • <u>GitHub</u>

PROFESSIONAL SUMMARY

Artificial Intelligence and Machine Learning-focused graduate student with an Electronics & Communication Engineering background and hands-on experience building NLP/speech and IoT + ML systems. Skilled in Python, deep learning (CNN/RNN/LSTM/GRU), SQL/relational databases, and end-to-end project execution including experimentation, evaluation, and documentation. Currently supporting Deep Learning instruction as a Graduate Teaching Assistant.

EDUCATION

Georgia State University | M.Sc. Computer Science (CGPA: 3.58) | Jan 2025 – Present
GITAM University, Hyderabad | B. Tech ECE with AIML Specialization (CGPA: 3.4) | Aug 2020 – Apr 2024

EXPERIENCE & PROJECTS

Graduate Teaching Assistant | Deep Learning | Georgia State University | Aug 2025 – Present
- Support Deep Learning course delivery through assignment/lab support and technical demos across CNNs and sequence models (RNN/LSTM/GRU).
- Conduct office hours and student mentoring, guide debugging, model tuning, and conceptual understanding.
- Assist with grading and rubric-based evaluation; provide actionable feedback to improve student outcomes.
- Support faculty research through literature review, experiment setup/execution, results analysis, and manuscript preparation (LaTeX/BibTeX) in deep learning and domain adaptation/transfer learning.

Lifeline — Blood Donation Management System (Database Systems Project) | Georgia State University | Spring 2025
- Designed the ER model and normalized a 3NF MySQL schema for blood banks, hospitals, donors, donations, inventory, orders, and rewards.
- Built the web app using Spring Boot (REST) + React.js with database development in MySQL Workbench.
- Implemented core flows: users, events, donations, and hospital orders with blood-bank approval logic.
- Enforced data integrity (PK/FK) and validated performance with test queries.

Artificial Intelligence–Based Voice Assistant | UG Capstone Project (Academic Project Lead) | Aug 2023 – Apr 2024
- Designed and implemented a voice-assistant workflow for conversational interaction, including intent handling and response generation.
- Built and trained sequence models (RNN/LSTM/GRU) for intent classification using Python with PyTorch/TensorFlow (Keras) and supporting libraries (NumPy/Librosa).
- Performed data preprocessing and feature engineering (tokenization/padding/embeddings; audio/text processing) and conducted error analysis to improve model reliability.
- Evaluated model performance using train/validation testing and reported 92% intent detection accuracy on a custom dataset; delivered a working demo and documentation.
- Led technical discussions and project reviews with faculty/peers; delivered a working demo and documentation covering methodology, experiments, and results.

Voice-Controlled LED Automation | Internship Project | May 2023 – Jul 2023
- Developed a smart-home lighting prototype using ESP8266 NodeMCU, enabling Wi-Fi connectivity and GPIO-based LED control.
- Integrated Google Assistant with IFTTT Webhooks to convert voice commands into HTTP triggers for device automation.
- Implemented firmware logic (Arduino/Embedded C/C++) for reliable command execution and device state handling; documented setup for repeatable deployment/testing.

SKILLS

- **Programming:** Python, C, Java, SQL, R, MATLAB
- **Statistics/ML:** scikit-learn, TensorFlow/Keras, PyTorch; CNNs, RNN/LSTM/GRU; model evaluation, error analysis
- **Data & Analytics:** NumPy, Pandas, Matplotlib, MS Office tools, Power BI, PySpark (basics)
- **Databases:** MySQL, Oracle, MongoDB, PostgreSQL, BigQuery (basic)
- **Tools:** Git/GitHub, Docker, Linux
- **Cloud & DevOps:** AWS, Azure, GCP; Kubernetes, Jenkins
- **Web / Backend:** Flask, Django, Node.js, React, JavaScript, HTML/CSS

ACHIEVEMENTS

- Earned a 50% undergraduate tuition fee waiver through GAT rank-based award.
- Received a Best Project Award at GITAM University.
- Secured top position in a departmental hackathon at GITAM University.