Amith Reddy Atla

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SUMMARY

Master's student in **Computer Science** with a strong foundation in **Python, Java, Node.js, SQL, Machine Learning, Distributed Systems, and Scalable Software Development**. Skilled in boosting system efficiency and data accessibility by engineering **ETL pipelines, custom dashboards, and optimized API services**. Experienced in deploying **machine learning models** with high accuracy and stability on complex datasets. Proficient in **Agile and Scrum methodologies**, contributing to high team productivity and **100% on-time project delivery**

EXPERIENCE

• **Software Engineer Intern**   Jan 2023 - May 2023
Estate Dekho   Hyderabad, India
  ◦ Implemented real-time property listing updates using **Node.js (Express.js)** and **AngularJS**, enabling live data synchronization without page refreshes, which enhanced user interaction and increased retention by **30%**
  ◦ Redesigned front-end interfaces with **AngularJS, React, and Redux**, dynamically displaying property updates, leading to a **25% improvement in user engagement and experience**
  ◦ Optimized backend API services using **Java (Spring Boot)** and **Hibernate**, improving database transaction efficiency and attaining a **40% reduction in data retrieval times**
  ◦ Deployed backend services on **Linux-based environments**, utilizing **Google Cloud Platform (GCP), AWS Lambda, and Docker** for **scalability, efficient execution, and seamless real-time integration**

• **Software Development Engineer Intern**   Jun 2022 - Aug 2022
Gap Inc.   Hyderabad, India
  ◦ Engineered **ETL pipelines** using **Java (Spring Boot)** and **Apache Kafka** for data extraction, transformation, and load tasks, ensuring **99.9% data integrity** and maintaining stable pipelines to support critical business insights
  ◦ Developed **custom dashboards and reporting interfaces** using **React, Node.js, and PostgreSQL**, streamlining data access and reducing report generation time by **30%**, while improving user engagement by **40%**
  ◦ Leveraged **Agile and Scrum methodologies**, utilizing **JIRA and Confluence** to enhance team productivity, achieving **100% on-time delivery** of sprint goals and significantly contributing to project milestones

• **Teaching Assistant**   Aug 2024 - Present
Michigan State University   East Lansing, MI
  ◦ Facilitated in delivering course content on **Computer Systems** to over **300 students**, guiding through **C++, system architecture, memory management, and operating systems**, resulting in improved student performance and engagement

EDUCATION

• **Michigan State University**   Aug 2023 - Present
Masters, Computer Science   CGPA: 3.8/4.0
  ◦ Relevant Coursework: Artificial Intelligence, AIoT, Operating Systems, Cloud Computing

PROJECTS

• **Graph Neural Network Ensemble for Node Classification**
Technologies: Python, PyTorch Geometric, Graph Neural Networks, Ensemble Learning
  ◦ Developed an ensemble of **Graph Neural Networks (GNN)** models, including **GCN, GAT, APPNP, and GraphSAGE**, to classify nodes in **large-scale graphs with millions of nodes and edges**, achieving high accuracy and robustness in real-world datasets
  ◦ Improved model performance through **advanced data preprocessing, feature engineering, and majority voting ensemble techniques**, increasing validation accuracy to **over 90%** and enhancing prediction stability by **30%** on imbalanced datasets

• **Neural-Enhanced LoRa Signal Decoding (NELoRa) for Low SNR Environments**
Technologies: MATLAB, PyTorch, Neural Networks, Signal Processing
  ◦ Implemented and fine-tuned a **neural-enhanced decoding model (NELoRa)** for **LoRa signals**, achieving a **50% reduction in Signal Error Rate (SER)** under low SNR conditions, with an **SER under 10% at -17dB**
  ◦ Enhanced signal decoding accuracy through **targeted fine-tuning** on a specified **SNR range (-20dB to -10dB)**, surpassing baseline models by **25%** and achieving reliable demodulation critical for **IoT and low-power communication networks**

SKILLS

• **Technical Expertise:** Data Structures, Algorithms, Machine Learning, Problem Solving, Optimization Techniques, Linux
• **Languages & Frameworks:** Python, Java, C++, TensorFlow, Keras, PyTorch, C, JavaScript, SQL, HTML/CSS
• **Web technologies:** AngularJS, ReactJS, NodeJS, REST APIs, JSON, XML, Flutter
• **Database Systems:** MySQL, DynamoDB, MongoDB, SQLite
• **Cloud Services:** AWS Lambda, Google Cloud Platform(GCP), Amazon DynamoDB, Azure Kubernetes Service
• **DevOps & Version Control:** Git, Github, Jenkins, Jira