Diya Shetty

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EDUCATION

North Carolina State University, Raleigh, NC — Expected Graduation: May 2026
Master of Computer Science (MCS) — GPA: 4.0/4.0
Courses: Software Engineering, Automated Learning and Data Analysis, Database Management Systems, Computer and Network Security, Computer Networks, Deep Learning Beyond Accuracy, Design and Analysis of Algorithms

BMS College of Engineering, Bengaluru, India — May 2024
Bachelor of Engineering (B.E.) in Information Science and Engineering
Courses: Data Structures, Database, ML, Computer Networks, DevOps, Software Testing, OOPs in C++

SKILLS

Languages: Python, C, C++, Java, HTML, CSS, JavaScript, XML, React, PHP, Node.js
Databases, Cloud and Operating Systems: MySQL, MongoDB, PostgreSQL, Azure, AWS, Windows, Ubuntu
Tools/Frameworks: GIT, Docker, Numpy, Pandas, Keras, Tensorflow, Scikit-learn, PySpark, Streamlit, Wireshark

WORK EXPERIENCE

Data Analyst Intern, Genpact, New York, USA — Jun 2025 - Aug 2025
- Designed and deployed an AI-powered Market Scope Analysis platform using Agentic AI to automate market growth, competitor, sentiment research, etc.; built AI Agents for data scraping, analysis, and querying with a front-end interface, reducing manual research time by ~60% and improving data accessibility for stakeholders.
- Built an AWS Glue ETL pipeline using dimensional modeling, transforming raw data into fact and dimension tables to enable daily analysis of 10K+ records across multiple business domains.

Summer Intern, EY, Chennai, India — Mar 2024 - Apr 2024
- Created an ERP business blueprint detailing procurement, manufacturing, and sales processes based on SAP-ERP systems.
- Developed an application to understand various aspects of an ERP system using HTML, CSS, JavaScript, and NodeJS.

Technical Operations Intern, Unfold Consulting, Bangalore, India — Aug 2023 - Nov 2023
- Performed UAT tests for their HR software in the development and production environment.
- Conducted thorough testing, creating positive and negative scenarios for comprehensive evaluation.
- Actively contributed to team meetings, discussing possible solutions for identified issues before Go-Live

PROJECTS

IoT - Azure Cloud – Digital Twin [Award: Best Innovation, Engenius 2024 National Level Project Competition]
- Developed an IoT device with Digital Twins (DTs) on Azure Cloud for real-time cattle monitoring, reducing effort and time spent by 30%.
- Integrated an app with APIs connecting to the DTs, providing personalized data of individual cows, health predictions, and alerts for farmers and veterinarians.
- Visualized a 3D cow model with visual cues and graphs to detect and alert health abnormalities in cattle.

Natural Language Processing (Research - [https://ieeexplore.ieee.org/document/10544307])
- Applied Bio+Clinical BERT on multiple NLP tasks for healthcare applications and achieved a high accuracy of 99%.
- Evaluated their correctness and trustworthiness using Explainability Tools like LIME and SHAP.
- Discovered dataset imbalance and gained insights to help make better decisions when integrating models into healthcare.

Deep Learning – Image Captioning
- Developed an Image Captioning model utilizing CNN (VGG16) and LSTM, achieving BLUE-1: 0.378 and BLEU-2: 0.203.
- Introduced an innovative aspect by incorporating poem generation into the captions using GPT-2 and FastAI Libraries.

Cryptography & Secure Networking
- Implemented a secure file transfer protocol in Python using AES-256 GCM encryption, PBKDF2 key derivation, and Diffie-Hellman key exchange.
- Developed a man-in-the-middle proxy to simulate on-path attacks, demonstrating vulnerabilities in DH-based protocols.
- Utilized PyCryptodome and socket programming to build custom PDUs for encrypted data transmission and integrity verification.