APOORVA BANDI

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SUMMARY

AI/ML and Full-Stack Developer with strong expertise in deep learning, data pipelines, and cloud-integrated web applications. Proven track record of delivering high-accuracy ML models and scalable systems using React, Node.js, and cloud platforms like AWS. Adept in translating research insights into production-ready solutions.

EDUCATION

University of Texas at Arlington | Arlington, Texas   **May 2025**
Master of Science in Computer Science

Jawaharlal Nehru Technological University | Hyderabad, IN   **May 2023**
Bachelor of Technology in Computer Science and Engineering

TECHNICAL SKILLS

Languages: Python, Java, SQL, C++

Web: HTML, CSS, JavaScript, React, Node.js

ML & DL: TensorFlow, PyTorch, Scikit-learn, Keras

Cloud & DevOps: AWS EC2, S3, Route 53, Firebase

Databases: MongoDB, MySQL

Visualization: Tableau, Power BI, Matplotlib

PROFESSIONAL EXPERIENCE

UTA Honors College   **June 2024 - May 2025**
Graduate Research Assistant
- Edited and improved 30+ student research papers, ensuring technical clarity and academic rigor across various domains.
- Guided 10+ students in implementing ML models for interdisciplinary capstone projects.
- Conducted 5+ writing and presentation workshops focused on AI applications and effective scientific communication.

Balaji Textiles, Hyderabad   **January 2023 - May 2023**
Data Analyst & Full-Stack Developer Intern (MERN, Tableau, AWS)
- Built a MERN application to monitor inventory/sales across 4+ branches and standardize data reporting.
- Created RESTful APIs and MongoDB schemas with optimized aggregation for analytical insights.
- Integrated Tableau dashboards and deployed app via AWS EC2 and S3 for centralized access.
- Enhanced reporting capabilities, leading to a 25% improvement in stock tracking accuracy and decision-making speed.

QuadB Tech   **August 2022 - December 2022**
Machine Learning Engineer Intern
- Improved model accuracy by 15% through robust hyperparameter tuning and pipeline optimization.
- Maintained 95%+ precision on benchmark datasets via iterative testing and data validation cycles.
- Automated pipelines, reducing preprocessing time by 30% and increasing model readiness for deployment.

ACADEMIC PROJECTS

Autism Detection using Computer Vision
- Developed a VGG16-based deep learning model for Autism detection with 74.32% accuracy using facial feature analysis.
- Processed images with data augmentation, optimizing model performance over 20 epochs.
- Achieved 76% precision (Non-Autistic) and 73% precision (Autistic) classifications with strong recall metrics.

Disaster Relief Coordinator App - [↗]
- Designed a decentralized, PWA-enabled web app using React, Node.js, MongoDB, and IPFS for emergency coordination.
- Integrated Mapbox API for geolocation and route tracking; enabled Firebase Authentication for secure access.
- Implemented Twilio API for automated SMS alerts; supported offline access and real-time updates.

Urban Soundscape Classifier -[↗]
- Built a convolutional neural network using Librosa-extracted MFCC features from UrbanSound8K dataset.
- Preprocessed over 8,700 audio clips with label balancing and noise filtering to improve classification reliability.
- Reached 88%+ test accuracy with confusion matrix and precision/recall evaluations.

CERTIFICATIONS
- AWS Certified Cloud Practitioner
- Google TensorFlow Developer Certification
- DeepLearning.AI: Neural Networks and Deep Learning