Bhoomika Pathapati

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SKILLS

Languages: Python, R, Java, HTML, CSS, JavaScript, SQL, MongoDB, PostgreSQL

Frameworks & ML: ReactJS, Django, Flask, TensorFlow, PyTorch, ONNX, TFLite, NLP, Scikit-learn, Pandas, NumPy

Operating Systems & Networking: Embedded Linux/Android, TCP/IP, Wireshark

Cloud & DevOps: AWS (IAM, EC2, S3, Lambda), Azure, GCP, Kubernetes, Docker, Git

Data Engineering, Visualization & Tools: Hadoop, Hive, Spark, Informatica, SSIS, ETL Tools, Tableau, Power BI, Postman, API Testing

AI Optimization & Deployment: Qualcomm SNPE, QNN SDK, Qualcomm AI Hub

EDUCATION

Indiana University   Bloomington, IN
Master of Science in Data Science (GPA: 3.83)   *Aug 2023 – May 2025*

REVA University   Bangalore, India
Bachelor of Technology in Computer Science (GPA: 9.12)   *Aug 2019 – May 2023*

EXPERIENCE

Intern - AI   Sep 2025 – Present
Mistral Solutions   *Fremont, CA*
- Converted and optimized ML models (ONNX/TFLite/PyTorch) for deployment on Qualcomm AI runtimes (SNPE, QNN SDK) with acceleration on Hexagon DSP, Adreno GPU, and NPU.
- Integrated and benchmarked AI inference in embedded Linux/Android applications, profiling performance, debugging runtime issues, and ensuring compatibility across Snapdragon platforms.

Data Engineer   Aug 2024 – Sep 2025
Project 990   *Bloomington, IN*
- Developed and maintained end-to-end data pipelines using Python, SQL, and ETL orchestration tools, reducing data processing latency by 30%.
- Designed interactive Tableau dashboards for health analytics, enhancing stakeholder engagement and increasing data accessibility by 35%.

Graduate Research Assistant   May 2024 – Aug 2024
IU Lily Family School of Philanthropy   *Indianapolis, IN*
- Architected custom configurations for Connected Papers, Inciteful, and Litmaps, cutting down literature review time by 6 hours weekly per researcher, improving overall project turnaround.
- Implemented a data insights framework utilizing Python and REST APIs, accelerating decision-making for nonprofit research initiatives by 20% and enhancing academic synthesis.

CyberSecurity Intern   Feb 2023 – May 2023
GlowNexus Technologies   *Bangalore, India*
- Built a secure Point of Sale (POS) system incorporating AES encryption and multi-factor authentication (MFA), reducing breach risk by 60% and supporting secure transactions for 5,000+ users.
- Spearheaded the integration of PAM protocols with EHR systems, enabling secure, role-based access for medical staff, decreasing unauthorized data access incidents by 15% and improving overall data integrity.

PROJECTS

Meta Kaggle and Trends in Data Science and Machine Learning | *Python, Matplotlib, Tableau*   May 2024
- Analyzed Meta Kaggle datasets to uncover key performance trends in team collaboration, identifying actionable insights that guided data-driven decision making.
- Implemented interactive dashboards and visualizations in Tableau, showcasing a 30% increase in engagement among top-performing teams, enhancing stakeholder reporting.

HealthSync: Healthcare Management for Optimal Patient Care | *React, Python, Vercel*   May 2024
- Architected a full-stack healthcare management platform integrating EHR systems, patient scheduling, and operational workflows, improving patient care efficiency by 20%.
- Engineered frontend components with React and backend REST APIs with Flask, enabling seamless data exchange and reducing appointment scheduling time.

Braille Character Recognition using Image Processing | *Python, OpenCV, Tesseract OCR*   Apr 2023
- Launched an OCR-based Braille recognition system with 95% accuracy, converting tactile Braille to readable text and increasing accessibility for visually impaired users, as the most junior intern.
- Optimized image pre-processing and text extraction pipelines using OpenCV, enhancing processing speed and reliability.