ADITHYA RAO KALATHUR

Udupi, Karnataka | +91-6362290372 | aditykr142@gmail.com | LinkedIn | GitHub | Portfolio

EDUCATION

Manipal School of Information Sciences (MSIS) — Manipal, India
Master of Engineering in Computer Science and Engineering — *2025 – 2027 (Expected)*

Manipal Institute of Technology (MIT) — Manipal, India
Bachelor of Technology in Computer and Communication Engineering | CGPA: 7.06/10 — *2020 – 2024*

TECHNICAL SKILLS

Programming Languages: Python, C, C++, Java, JavaScript, SQL

Machine Learning & AI: PyTorch, TensorFlow, Keras, Scikit-Learn, Deep Learning, Natural Language Processing, Computer Vision, Transfer Learning, Ensemble Methods, OpenAI API, LLM Fine-tuning, Grad-CAM

Web Development: React.js, Node.js, Express.js, Flask, RESTful APIs, HTML5, CSS3, PostgreSQL, MongoDB, JWT Authentication

Data Science & Analytics: Pandas, NumPy, Matplotlib, Seaborn, Power BI, DAX, Data Modeling, ETL Pipelines, Statistical Analysis

Cybersecurity: Penetration Testing, SQL Injection Analysis, Vulnerability Assessment, Kali Linux, Burp Suite, DVWA, Metasploitable

Tools & Technologies: Git, GitHub, Docker, Linux, AWS, GCP, Jupyter Notebook, VS Code, Google Colab, NVIDIA GPU Computing

PROFESSIONAL EXPERIENCE

Full Stack Web Development Intern — Jun 2023 – Jul 2023
Thaniya Technologies [Certificate] — *Mangalore, India*
- Developed a full-stack movie recommendation and review platform using React.js, Node.js, Express.js, and PostgreSQL
- Integrated external movie APIs (TMDb/OMDb) to fetch and dynamically display movie metadata and user reviews
- Implemented NLP-based sentiment analysis on user reviews using Python and scikit-learn
- Designed RESTful APIs and database schemas to support efficient data retrieval and application workflows

ACADEMIC PROJECTS

Deep Learning-Based Grading of Squamous Cell Carcinoma [GitHub]
- Achieved high classification performance using InceptionV3 for SCC vs Adenocarcinoma on LC25000 histopathology dataset; evaluated DenseNet121, MobileNetV2, ConvNeXt-Tiny, and InceptionV3
- Developed multi-class SCC grading pipeline (Well, Moderate, Poor differentiation) using EfficientNetB0 with data augmentation and class-balanced training
- Integrated Grad-CAM visual explanations and deployed a Gradio-based interface with locally hosted LLM (Phi-3 Mini via Ollama) to provide model interpretation summaries in a 4-member team

SQL Injection Detection using Hybrid Machine Learning Models [GitHub]
- Developed hybrid SVM-RF ensemble achieving 97.84% accuracy, 98.09% precision, and 97.57% recall on 30,920 queries, outperforming standalone models
- Conducted penetration testing on DVWA and bWAPP using Kali Linux and Burp Suite; engineered features including query patterns and SQL keyword analysis
- Evaluated BiLSTM model achieving 98.75% accuracy for detecting obfuscated injection patterns in 2-member collaboration

FMCG Supply Chain Analytics Dashboard [GitHub]
- Designed Power BI dashboard analyzing supply chain KPIs (OTIF, LIFR, VOFR) for Atliq Mart across 3 cities and 50+ product categories
- Developed 20+ DAX measures for root cause analysis, identifying 15% service delivery gap across customer segments and product dimensions
- Generated actionable insights through trend analysis and forecasting in 3-member team, enabling data-driven optimization decisions

Network Intrusion Detection System [GitHub]
- Built intrusion detection system using Random Forest and Gradient Boosting, achieving 94%+ accuracy in identifying network anomalies
- Performed feature engineering on network traffic data; optimized model to maintain false positive rate below 5% for production readiness

PUBLICATIONS

Enhancing SQL Injection Detection: A Comparative Study of SVM, Random Forest and Hybrid Models
[Certificate]
Presented at 1st International Conference on Computational Intelligence and Data Communication (ICCIDC 2025), Bali, Indonesia, October 2025

CERTIFICATIONS

Google Cybersecurity Professional Certificate | Google Data Analytics Professional Certificate | IBM Data Science Professional Certificate | IBM Cybersecurity Professional Certificate | UC San Diego Big Data Specialization | Generative AI with LLMs (DeepLearning.AI) | Microsoft Azure Fundamentals | LearnQuest Linux Fundamentals | GitHub Foundations | Basics in IoT Security [Certificates]

ADDITIONAL INFORMATION

Languages: English (Fluent), Hindi (Fluent), Kannada (Native), Tulu (Native)