Varun M

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Education

Anna University - C. Abdul Hakeem College of Engineering & Technology	Sep. 2021 – May. 2025
*Bachelor of Engineering in Computer Science - **CGPA : 9.14/10***	*Ranipet, India*

Relevant Coursework

- Data Structures
- Algorithms
- Artificial Intelligence
- Data analysis
- Software Engineering
- Database Management
- Machine Learning
- Big Data

Experience

Mitacs Globalink Research Internship'24	Jul. 2024 – Sep. 2024
Research Intern	*British Columbia, Canada*

- Analyzed 10+ research papers to identify gaps in malicious traffic detection and machine learning use in cybersecurity
- Built and optimized machine learning models (Logistic Regression, SVM, Random Forest) to classify network traffic, reaching 91% accuracy in detecting malicious activity
- Implemented a phishing detection system combining layout detection, logo comparison, and CRP classifier to improve phishing site identification accuracy
- Led the project using Python (Pandas, Scikit-learn, BeautifulSoup) for web scraping, data processing, and feature extraction, creating a scalable phishing detection framework

Indworks	Jul. 2023 – Jan. 2024
Software Development Intern	*Chennai, India*

- Developed mobile interfaces using Flutter at Indworks, increasing user engagement by 30% through improved client experiences and app functionality.
- Integrated Firebase for backend services, enhancing data synchronization by 40% and improving user authentication efficiency by 25%, boosting security and performance.

Skills & Expertise

Languages, Libraries & Frameworks: Python (Numpy, Pandas, Matplotlib, Scikit-learn, PyTorch), C, Java, SQL
Data Science & Machine Learning: Data cleaning, preprocessing, transformation, feature engineering, ML models, model evaluation, hyperparameter tuning, CI/CD Deplyoments
NLP and Generative AI: Text classification, tokenization - BOW, named entity recognition (NER), sentiment analysis, transformer models, GANs, Large Language Models (LLMs), Langchain, text generation, and other deep learning techniques.

Projects

Outlyr.AI - Cold Email Generator | *Python, ChatGroq, LangChain, ChromaDB, Streamlit*	Nov. 2024

- Built a tool that extracts job listings from company careers pages and crafts highly personalized cold emails, reducing the time spent on outreach by 50% for HR teams.
- Implemented a vector database to dynamically source portfolio links, ensuring personalized emails aligned with job requirements.
- Configured the project with environment variables, including API key setup for Groq, ensuring seamless deployment and reducing setup time for new users by 40%.
  Source code : Click here

GAN-Resistant Phishing Detection Tool | *Python - Numpy, Pandas, Scikit-Learn, PyTorch*	Sept. 2024

- Developed GRPD, a phishing detection framework leveraging adversarial training and multi-modal features to combat GAN-generated attacks, achieving 92% accuracy.
- Engineered a framework incorporating 15 features from URLs, HTML, and WHOIS data, reducing phishing response time to under 3 seconds.
  Source code : Click here

Achievements & Research

- Mitacs-funded Summer Research Project, awarded 8800 CAD after competing with 30,000 applicants worldwide
- Fully funded scholarship for the entire 4-year undergraduate program, awarded by my high school in recognition of academic excellence.
- Varun Mayilvaganan, Dr. Sina Keshvadi, "GRPD: A GAN-Resistant Phishing Detection Tool", IEEE Canada, manuscript is drafted (expected submission in 2025)