

KEERTHANA REDDY GUDI

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EDUCATION

08/2023 – 05/2025	University of Texas at Arlington, Master of Science in Computer Science GPA: 3.7 CourseWork: Data Mining, Machine Learning, Artificial Intelligence, Cloud Computing Big Data, Data Analysis and Modeling, Distributed Systems.	Texas, USA
08/2019 – 06/2023	B V Raju Institute of Technology, Bachelor of Technology in Computer Science Engineering GPA: 8.98	Telangana, India

SKILLS

Programming skills C, Python, Java	Database Knowledge SQL	Web Technologies HTML, CSS	Machine Learning Scikit-learn, NLTK, TF-IDF, Classification Algorithms
Data Visualization PowerBI	Cloud Platforms AWS	OS Windows	IDE/Tools Jupyter Notebook, VS Code

PROJECTS

Semantic Search Engine, Machine Learning | Python, NLP, Elasticsearch

- Architected a high-performance semantic search engine using Elasticsearch and sentence-transformers to enhance text retrieval.
- Automated dataset acquisition via Kaggle API, streamlined data preprocessing, and optimized embeddings for improved search relevance.
- Deployed a Streamlit-based interactive web interface, enabling real-time query execution.
- Optimized Elasticsearch indexing to enhance retrieval speed and ensure accurate similarity-based search.
- Technologies: Python, Elasticsearch, sentence-transformers, Streamlit, Kaggle API, NLP

Cyber Bullying Detection, Machine Learning | Python, ML, NLP

- Developed a cyberbullying detection model using Logistic Regression on 5,000 tweets, achieving **92% accuracy** and reducing false positives by **15%**.
- Implemented a Flask-based real-time classification web interface, improving user accessibility.
- Enhanced feature extraction with NLTK, increasing classification precision.
- Technologies: Python, scikit-learn, NLTK, Flask

Intrusion Detection with Feature Selection, Machine Learning | Feature Selection, ML

- Engineered an intrusion detection system using the UNSW-NB15 dataset with Chi-square feature selection to improve detection accuracy.
- Tuned a Random Forest classifier, achieving improved anomaly detection with reduced false positive rate by **18%**.
- Conducted comparative analysis to validate feature impact and classification robustness.
- Technologies: Python, scikit-learn, pandas, NumPy

Fake News Detection, Machine Learning | NLP, ML

- Implemented a fake news classifier leveraging TF-IDF and Decision Tree algorithms, improving misinformation detection accuracy by **20%**.
- Applied NLP preprocessing with NLTK to reduce noise and accelerate vectorization throughput.
- Evaluated model performance using precision-recall metrics to fine-tune decision boundaries.
- Technologies: Python, NLTK, scikit-learn, TF-IDF

CERTIFICATES & BADGES

Introduction to Cloud101 — Amazon Web Services • PwC Power BI Virtual Experience Program — Forage •

Generative AI Fundamentals — Databricks • SQL Essential Training — LinkedIn Learning Community •

AICTE NEAT - Cyber Security Virtual Internship — Credential ID 79a7b21c963df7402d0e727b638e63db •

Programming for Everybody (Getting started with Python) — Coursera • Cybersecurity Essentials — Cisco Networking Academy • AI for everyone — Coursera • Introduction to Cybersecurity — Cisco Networking Academy

ACHIEVEMENTS

- Earned PCCET Global Certification by Palo Alto Networks Cybersecurity Academy.
- Served as Class Representative for 4 semesters (2021-2023), managing 60+ students.
- Developed a Google Assistant Chatbot during a workshop using DialogFlow.
- Participated in Hackathon 2019 organized by BVRIT.