Gurucharan Vemuru

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Technical Skills

- **Programming Languages:** JavaScript, Python, HTML5, CSS3, SQL
- **Frameworks & Technologies:** Django, React Native, TensorFlow, Scikit-learn, REST APIs, PyTorch, Keras,
- **Tools & Platforms:** AWS, Docker, Visual Studio, Linux, Git, Postman, MySQL, Distributed Systems

Education

Master of Science in Information Technology Management
Concentration: Artificial Intelligence & Data Analytics *May 2025*
University of Wisconsin-Milwaukee, Wisconsin
Graduate Certificates & Honors: AI & Data Analytics, Business Analytics; Dean's Honor List

Bachelor of Technology in Computer Science and Engineering
Concentration: Data Structures & Algorithms, Operating Systems *May 2022*
Nedurumalli Balakrishna Reddy Institute of Science and Technology, Andhra Pradesh, India

Experience

Student Associate – Assistive Technology & Accessibility
UWM Accessibility Resource Center, Milwaukee, WI *Sep 2024 – May 2025*

- Improved Web accessibility for 100+ university pages using ADA/WCAG standards and assistive technology tools.
- Assisted in QA testing and accessibility audits for over 10 university platforms, helping refine user interfaces and track Americans with Disabilities Act compliance in a On - campus part-time support role at UW-Milwaukee.

Machine Learning Intern - Internship
Indian Servers *Sep 2021 – Nov 2021*

- Developed a fake news detection model using XGBoost with accuracy 87% through feature engineering and testing.
- Contributed to natural language processing (NLP) preprocessing and evaluation workflows using Python.

Projects

Steam Game Recommendation Engine
Built a hybrid recommender system using Alternating Least Squares and Term Frequency–Inverse Document Frequency (TF-IDF) with Cosine Similarity to suggest games for 5000+ users. Integrated frequency pattern growth (FP-Growth) for pattern mining and achieved an RMSE of 0.85 and Precision@5 of 72%.

- Custom visualizations created to analyze the popularity of the game and user engagement, enabling strategic insights.

Hand-Drawn Doodle Recognition Using Deep Learning
Trained a Convolutional Neural Network (CNN) on 345 classes using Google Quick, Draw! Data set and deployed it via FastAPI and TensorFlow.js. Built an interactive sketch interface with the p5.js JavaScript library for real-time predictions.

- Allowing users to draw sketches directly in the browser, which were then processed by a trained deep learning model to generate instant predictions simulating the interactive experience of Google's 'Quick, Draw!' game.

Detection of Malicious social-bots with URLs using Learning Automata
Created a full-stack Django application using supervised learning models including Multilayer Perceptron (MLP), Support Vector Machine (SVM), Naive Bayes, and Extreme Gradient Boosting (XGBoost) to detect phishing bots on social platforms using real-time data fetched from the Twitter API.

- Implemented a URL-based feature extraction pipeline and lexical token analysis to build input features for classification.
- Achieved 89% accuracy with XGBoost, outperforming decision tree baselines, by evaluating with metrics such as precision, recall, and F1-score.
- Integrated MySQL to store prediction results and model output for further analysis and retraining.

Certifications

- Data Structures and Algorithms by Internshala
- The Complete JavaScript Course by Dev Ed