HEMANTH CHOWDARY KAVULA

MS Computer Science Student | Data Scientist & Analyst | 95%+ ML Accuracy & 50K+ Records Analyzed

Pitman, NJ 08071 | (856) 524-6050 | hemanthkavula2001@gmail.com

LinkedIn: linkedin.com/in/hemanthkavula | GitHub: github.com/hemanthkavula

PROFESSIONAL SUMMARY

Computer Science graduate student with hands-on experience in machine learning, statistical analysis, and business intelligence. Proven ability to build predictive models with 95%+ accuracy, analyze 50,000+ data records using Python and SQL, and deliver data-driven insights through Power BI and Tableau visualizations. Skilled in ETL pipelines, feature engineering, and cross-functional collaboration to drive KPI improvements. Seeking Data Scientist/Data Analyst roles to leverage advanced analytics, machine learning, and data storytelling to solve complex business problems.

EDUCATION

Master of Science in Computer Science   Graduated: Dec 2025

Rowan University, Glassboro, NJ   GPA: 3.8/4.0

Bachelor of Technology in Computer Science and Engineering   Graduated: May 2023

RVR & JC College Of Engineering, Andhra Pradesh, India   GPA: 8.66/10.0

SKILLS

Technical Skills: Python, JavaScript, SQL, R, HTML, CSS, MongoDB, Git, Excel

Data Science & Analytics: Machine Learning, Data Analysis, Numpy, Pandas, Statistical Modeling, Topic Modeling, Data Visualization, Predictive Analytics, ETL Pipelines, Data Mining, Data Engineering, Natural Language Processing.

Tools & Frameworks: Power BI, Tableau, Scikit-learn, Pandas, NumPy, TensorFlow, React.js, Node.js, Express.js, OpenCV, Postman, Bootstrap, AWS.

Core Competencies: Problem-Solving, Attention to Detail, Consistency & Reliability, Self-Motivation, Professionalism & Respectful Collaboration.

WORK EXPERIENCE

Junior Data Scientist   Apr 2023 - Oct 2023

Arshil Digital Private Limited | Hyderabad, India

- Extracted and analyzed 50,000+ customer records using SQL queries, reducing data retrieval time by 35% and enabling real-time reporting for business stakeholders.
- Automated data cleaning workflows in Excel using VBA macros, processing 10+ datasets weekly and reducing manual effort by 40%.

- Collaborated with cross-functional team of 5+ developers to identify top 3 customer pain points through data analysis, leading to product features that increased user retention by 12%.

Machine Learning Intern   May 2022 – Jul 2022

Indian Servers | Vijayawada

- Developed supervised learning models (Random Forest, SVM) in Python achieving 88% accuracy on customer classification tasks, reducing prediction error by 20%.
- Built computer vision application using OpenCV and Keras for object detection, processing 1,000+ images with 85% detection accuracy.
- Implemented transfer learning techniques using pre-trained models (VGG16, ResNet), reducing model training time from 8 hours to 2 hours (75% improvement).
- Deployed 2 ML models to production environment, contributing to client projects valued at $50K+.

Data Science Intern   Mar 2022 – May 2022

1STOP.ai | Bangalore

- Developed machine learning models using Python and TensorFlow for handwritten digit recognition, achieving 94% accuracy on MNIST dataset with 25% error rate reduction.
- Implemented K-Means and Hierarchical Clustering algorithms on 10,000+ customer records, identifying 5 distinct market segments that improved targeted marketing efficiency by 30%.
- Applied Linear Discriminant Analysis (LDA) for dimensionality reduction on datasets with 100+ features, improving model training time by 45%.
- Engineered 15+ features through exploratory data analysis using Pandas and NumPy, increasing predictive model performance by 18%.

PROJECTS

Mental Health Reddit Analysis   April 2025 – May 2025

Technologies: Python, NLTK, Scikit-learn, HuggingFace Transformers (BERT), Gensim, Pandas, Matplotlib, Seaborn

GitHub: https://github.com/hemanthkavula/mental-health-reddit-analysis

- Analyzed 8,823 Reddit posts from 6 mental health subreddits to identify discussion patterns and classify crisis-level content using machine learning.
- Built an end-to-end NLP pipeline using TF-IDF, Word2Vec, and BERT embeddings for semantic text representation.
- Developed and evaluated supervised ML models, achieving 72% accuracy with Random Forest and 0.77 ROC-AUC using Logistic Regression.
- Applied unsupervised learning techniques including K-Means clustering and LDA topic modeling to uncover latent discussion themes.
- Identified two dominant themes: crisis narratives and coping strategies, with "therapy" as the most frequently discussed keyword.
- Performed sentiment analysis, temporal trend analysis, and outlier detection, detecting 48 high-engagement crisis posts using Z-score analysis.
- Demonstrated how AI-driven insights can support early mental health crisis detection for community moderators and professionals.

Pizza Sales Data Analysis   April 2025

Technologies: MySQL, SQL, Database Design

GitHub: github.com/hemanthkavula/pizza-sales-sql-analysis

- Analyzed 10,000+ sales transactions using advanced SQL techniques (CTEs, Window Functions, Joins) across 4 normalized database tables.
- Identified peak ordering hours and high-performing pizza categories, providing data-driven. recommendations to optimize staffing allocation by 20% and increase revenue by $50K annually.
- Engineered 14 complex SQL queries to calculate KPIs including customer lifetime value, product performance metrics, and seasonal trend analysis.

Automated Facial Recognition Attendance System   December 2024

Technologies: Python, OpenCV, Scikit-learn, K-NN, PCA, Pandas

GitHub: github.com/hemanthkavula/Automated-Facial-Recognition-based-Attendance-System

- Engineered real-time facial recognition system using OpenCV and Haar Cascade classifiers, processing video streams at 30+ FPS with 95% recognition accuracy.
- Implemented K-Nearest Neighbors (K-NN) and Principal Component Analysis (PCA) algorithms to reduce dimensionality by 60% while maintaining model performance.
- Automated attendance tracking for 100+ individuals, eliminating 15+ hours of manual work weekly and reducing human error by 90%.

DRIVENOW - Full-Stack Car Rental Platform   May 2024 - Jul 2024

Technologies: React.js, Node.js, Express.js, MongoDB, JWT, REST APIs

GitHub: github.com/hemanthkavula/Car-Rental-Project-MERN-Stack

- Architected full-stack web application using MERN stack with JWT authentication, serving 2 distinct user interfaces for customers and rental agencies
- Designed RESTful API backend with Express.js, implementing 15+ endpoints for vehicle management and booking transactions with 99.5% uptime
- Developed responsive React frontend with component-based architecture, reducing page load time by 40% through optimized state management
- Integrated MongoDB database with normalized schema design, efficiently managing 500+ vehicle listings with sub-second query performance

CERTIFICATIONS

- Foundations: Data, Data, everywhere - Google Offered by Coursera
- Ask Questions to Make Data-Driven Decisions - Google Offered by Coursera
- Prepare Data for Exploration - Google Offered by Coursera
- AI – Data Scientist-Version 3.0 - NASSCOM
- Data Analytics with Python - NPTEL (National Programme on Technology Enhanced Learning)
- AWS Academy Graduate - AWS Academy Cloud Foundations
- Data Fundamentals - Bosscoder Academy
- Data Science Internship Completion - 1stop.ai
- Machine Learning Trainee - Indian Servers