

VINAYAK VIVEK JOSHI

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PROFESSIONAL SUMMARY

Machine Learning Engineer & AI Specialist

AI/ML, Deep Learning & GenAI Enthusiast

- Specialized Expertise:** Computer Science undergraduate with demonstrated proficiency in Machine Learning, Deep Learning, and Generative AI through **4+ end-to-end ML projects** achieving **clinical-grade accuracy** in healthcare and predictive analytics domains.
- Technical Proficiency:** Complete ML pipeline mastery from data preprocessing and feature engineering to model deployment, with hands-on experience in classification, regression, and predictive analytics using Python, Scikit-learn, and advanced statistical modeling techniques.
- Innovation Focus:** Passionate about leveraging artificial intelligence to solve complex real-world challenges in healthcare diagnostics, autonomous systems, and intelligent automation with emphasis on scalable, production-ready solutions.

EDUCATION

Vellore Institute of Technology

Bachelor of Technology in Computer Science & Engineering

Chennai, Tamil Nadu

Aug 2023 – June 2027

- Academic Excellence:** CGPA: **8.74/10.0** - Demonstrating consistent high performance in technical coursework

TECHNICAL SKILLS

AI & Machine Learning: Scikit-learn, TensorFlow, PyTorch, Regression Analysis, Classification, Random Forest, SVM, Gradient Boosting, XGBoost, Model Evaluation & Validation, NumPy, Pandas, Matplotlib, Seaborn, Plotly, Statistical Analysis, Feature Engineering, Data Preprocessing, Exploratory Data Analysis, OpenAI GPT, Prompt Engineering, Natural Language Processing, Large Language Models

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

MLOps & Deployment: Docker, Git, Model Deployment, Flask, Streamlit, RESTful Services, Jupyter Notebooks

Database & Cloud: Firebase, Supabase, Google Cloud Platform, Streamlit Cloud

Development Tools: VS Code, PyCharm, Google Colab, Kaggle, Anaconda, Virtual Environments

MACHINE LEARNING PROJECTS

Diabetes Risk Predictor | Python, Scikit-learn, Streamlit, Clinical ML, Healthcare AI | GitHub

- Healthcare Impact:** Developed a machine learning web application for diabetes risk assessment achieving **clinical-grade accuracy** using validated algorithms on medical datasets with **8 clinical parameters** evaluation.
- Production Excellence:** Deployed enterprise-grade application on Streamlit Cloud with interactive risk visualization, real-time analysis, and comprehensive risk stratification serving healthcare professionals worldwide.

Heart Disease Prediction System | Python, Scikit-learn, Statistical Modeling, Medical Data Analysis | GitHub

- Healthcare Impact:** Built an AI-powered diagnostic system for early cardiovascular disease detection using classification algorithms on clinical datasets, achieving **high precision and recall metrics** for medical risk assessment.
- Data Science Excellence:** Performed extensive exploratory data analysis and correlation studies to identify key biomarkers and risk factors, implementing feature scaling and handling class imbalance using SMOTE techniques.







AI Story Generator | Python, Flask, Google Gemini AI, Natural Language Processing, Web Development | GitHub

- GenAI Innovation:** Developed a feature-rich web application leveraging Google Gemini AI for intelligent story generation with customizable parameters including genre, length, character types, and **multi-language support across 5 languages**.
- Full-Stack Excellence:** Implemented advanced features including story continuation, text-to-speech integration using Google TTS, PDF/TXT export functionality, and modern glassmorphic UI with responsive design and animated particle effects.

Mom's Kitchen Food Delivery Platform | React, Supabase, OpenAPI | GitHub

- Smart Platform:** Developed a comprehensive food delivery platform using React and Supabase architecture with modern UI/UX design and real-time order management functionality.

ACHIEVEMENTS & CERTIFICATIONS

-  **Academic Excellence:** Strong academic performance with **8.74/10.0 CGPA** in Computer Science & Engineering program
-  **Industry Certification:** Completed IBM's Generative AI for watsonx.ai certification course, gaining expertise in enterprise-level GenAI applications
-  **Project Portfolio:** Completed **4+ machine learning projects** with measurable impact and documented performance metrics
-  **Technical Expertise:** Proficient in end-to-end ML pipeline development from data collection to model deployment
-  **Continuous Learning:** Currently learning Deep Learning and exploring advanced AI techniques in a professional capacity
-  **Algorithm Mastery:** Experience with both supervised and unsupervised learning algorithms across multiple domains