

VINAY MANDAL

Aspiring AI/ML Engineer — Python Developer — Computer Vision
Ujjain, Madhya Pradesh, India

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PROFESSIONAL SUMMARY

Passionate Python developer with hands-on experience building real-world AI/ML and Computer Vision projects. Proficient in data analysis, machine learning workflows, and full-stack web development. Strong foundation in mathematics and algorithms with demonstrated ability to deploy production-ready solutions. Actively contributing to open-source projects and building in public via GitHub. Seeking opportunities to apply technical expertise and grow as an AI/ML Engineer.

TECHNICAL SKILLS

Programming Languages: Python, JavaScript, HTML, CSS

Machine Learning & AI: Scikit-learn, NumPy, Pandas, Matplotlib, Computer Vision, Object Detection, Image Processing

Web Development: HTML5, CSS3, JavaScript (ES6+), Responsive Design, Netlify Deployment

Tools & Platforms: Git, GitHub, Jupyter Notebook, Command Line, Virtual Environments

Core Competencies: Data Analysis, Algorithm Design, Model Evaluation, Full-Stack Development, Problem-Solving

PROJECTS & ACHIEVEMENTS

PDF Reader Application

Python, Object-Oriented Programming

Developed a robust command-line PDF processing tool with multi-page document parsing and data extraction capabilities. Implemented core file I/O operations, error handling, and modular architecture. Published on GitHub with comprehensive documentation and version control best practices (Git workflow, .gitignore configuration, branch management).

Computer Vision Object Detector

Python, Scikit-learn, NumPy, Image Processing

Built an object detection system leveraging machine learning for visual recognition. Implemented image preprocessing pipelines, feature extraction, and model training using Scikit-learn. Demonstrated practical application of computer vision algorithms and data science workflows.

QR Code Generator

Python

Created a utility application for QR code generation and customization. Showcases Python library integration, modular code design, and practical implementation of encoding algorithms.

Freelance Web Development Portfolio

HTML, CSS, JavaScript, Netlify

Designed and deployed a professional portfolio website for client (Virendra Mandal) featuring responsive design, custom styling, and live hosting on Netlify. Managed full development lifecycle including requirements gathering, design, implementation, testing, and deployment troubleshooting.

Personal Portfolio Website

HTML, CSS, JavaScript, Modern Design

Developed dark-themed portfolio showcasing AI/ML projects and technical skills. Integrated live GitHub project links, skills showcase, and analytics tracking. Demonstrates ability to create clean, functional web interfaces for deploying ML projects end-to-end.

Machine Learning Performance Analysis

Python, Pandas, Matplotlib, Data Analysis

Conducted comprehensive analysis of ML metrics (RMSE, MAE, model evaluation techniques). Created formatted visualizations and documentation. Experience with Hands-On Machine Learning frameworks and best practices in model assessment.

EDUCATION

Mathematics (Higher Secondary Education) — Gov. Excellence Higher Secondary School, Ujjain, MP

Expected: November 2030

Currently enrolled in computer science stream. Actively preparing for engineering college enrollment with self-directed study in AI/ML fundamentals and advanced Python development.

CERTIFICATIONS & CONTINUOUS LEARNING

Self-directed study in Machine Learning fundamentals and advanced Python programming

Active learner on GitHub with commitment to building in public and contributing to open-source projects

Pursuing expertise in Computer Vision, Deep Learning, and practical AI/ML applications

ADDITIONAL INFORMATION

Philosophy: Consistency over motivation. Projects over certificates. Hands-on learning through real-world implementation.

Open To: Internships, collaborations, freelance projects, and open-source contributions where I can learn from experienced engineers and accelerate growth.