

# VED PRAKASH PATHAK

## Machine Learning Engg | AI Developer

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### OBJECTIVE

To leverage my expertise in machine learning and artificial intelligence to contribute to innovative projects, driving advancements in technology and solving complex real-world problems. Passionate about exploring emerging methodologies and frameworks, I aim to collaborate with a dynamic team, where I can apply my skills to develop impactful solutions and propel organizational growth in the ML and AI domain.

### LANGUAGES

- Python
- HTML & CSS
- JavaScript

### EXPERIENCE

#### FREELANCE AI DEVELOPER & MACHINE LEARNING ENGINEER

##### Self-Employed

04/2023-

- Versatile Freelance AI Developer & Machine Learning Engineer proficient in Python, specializing in Natural Language Processing (NLP), Computer Vision, and Generative AI.
- Developing expertise in developing chat-based applications and implementing cutting-edge RAG-based recommendation systems.
- Demonstrated ability to leverage advanced AI techniques to solve complex problems and deliver innovative solutions.

### FRAMEWORKS

- TensorFlow
- Scikit-Learn
- Pytorch
- Matplotlib
- FastApi
- Docker
- Kubernetes
- Git | Github
- AWS | GCP | AZURE

### PROJECT HIGHLIGHTS

#### RAG BASED OPENAI CHATBOT DEPLOYED ON WORDPRESS

Worked on the end-to-end development of a highly customizable Rag Based OpenAI Chatbot plugin for WordPress, optimizing user engagement with personalized responses through intelligent data retrieval and real-time, dynamic interactions enabled by a robust tech stack including FASTAPI, HTML, CSS, PHP, WebSocket, and JavaScript functionalities.

#### MCQ-GENERATOR

Developed an interactive RAG-based MCQ generator, achieving 90% accuracy in content extraction. Architected scalable solution handling voluminous uploads and generating quizzes tailored to user demands.

#### IMAGE-GENERATION-WITH-GANS

Developed concurrent training of GANs, achieving 98% convergence within 9 hours spanning 100 epochs. Engineered Generator to produce realistic fashion images with g\_loss of 0.312. Calibrated Discriminator for precise classification with d\_loss of 1.1025. Demonstrated relentless improvement with Generator achieving 10% progression per epoch, consistently delivering high-quality samples.

### CERTIFICATES

- ▶ Production Machine Learning Systems
- ▶ Feature Engineering
- ▶ ML Pipelines on Google Cloud
- ▶ Computer Vision Fundamentals with Google Cloud
- ▶ Machine Learning Operations (MLOps) with Vertex AI: Manage Features
- ▶ TensorFlow on Google Cloud

### EDUCATION

**RAJIV GANDHI PROUDYOGIK VISHWAVIDYALAYA, BHOPAL**  
MECHANICAL ENGINEERING

2015-2019

Achieved distinction with Honours with CGPA score of 7.54.