AVINASH

Machine Learning Engineer | AI Developer | Deep Learning Engineer | Data Scientist

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| https://github.com/Avinashabilash | LinkedIn |

PROFESSIONAL SUMMARY

B.Tech CSE (AI & ML) graduate with strong expertise in artificial intelligence, machine learning, and data driven problem solving. Experienced in developing predictive models, data preprocessing, and implementing supervised and unsupervised learning algorithms. Proficient in Python, scikit-learn, NumPy, and data visualization tools. Passionate about creating intelligent systems that deliver real-world insights and drive innovative AI solutions.

TECHNICAL SKILLS

• **Languages**: Python, HTML, CSS ,SQL
• **Frameworks**: Django, Flask Tools, Pandas, NumPy, Excel Domain
• **Expertise:** Artificial Intelligence, Machine Learning, Deep Learning, Neural Network
• **Data Analysis and Visualization**: Pandas, NumPy, Matplotlib, Seaborn, SciPy
• **Version Control and Other Tools**: Git, GitHub, VS Code, Google Colab, Anaconda Navigator, Jupyter.

PROFESSIONAL EXPERIENCE

GRASPEAR SOLUTIONS Jan 2025 – Apr 2025
| AI Research Intern **|**
Worked on AI and machine learning projects including motion detection systems.
• Designed and deployed ML models for real-time inference.
• Automated data collection using APIs and web scraping (10,000+ data points/day).
• Implemented model retraining and monitoring pipelines to ensure performance stability.
• Collaborated in an Agile environment for data preprocessing and model optimization.

Microshare Software Solutions Pvt. Ltd. April 2023– June 2023
| Web Development Intern **|**

- Developed and tested core modules for payroll management, ensuring smooth system functionality.
- Implemented Django views and models to optimize payroll processing, reducing manual errors and processing time by 35%.
- Performed comprehensive test cases and UI validation to ensure system reliability and accuracy.
- Gained hands-on experience in full-stack web development and the entire software project lifecycle.

PROJECTS

Sentiment Analysis of Google Play Store Reviews GitHub Link
Type: College / Mini Project | **Role:** Machine Learning Developer
Tech Stack: Python, PyTorch, HuggingFace Transformers, Pandas, Scikit-learn, Jupyter Notebook
Description:
Developed a **BERT-based sentiment analysis model** to classify app reviews into **Positive, Negative, or Neutral** categories.
Preprocessed and tokenized **Google Play Store app reviews**, trained the model using HuggingFace **Trainer API**, and achieved **~91% accuracy** on test data.
Built a **real-time interactive interface** for predictions, allowing users to input reviews and receive sentiment outputs.

Word2Vec Movie Review Analysis | GitHub Link
Type: College Mini Project | **Role:** Machine Learning Developer Aug 2024 – Sep 2024
Tech Stack: Python, Gensim, Pandas, NumPy, Scikit-learn
Description: Developed a Word2Vec model to analyze movie reviews, preprocess text data, and capture semantic relationships between words. Automated preprocessing pipeline and deployed model for sentiment prediction on new reviews.

RAG-Based PDF Question Answering System GitHub Link
Type: Personal / College Project | **Role:** AI & ML Developer Sep 2025 – Present
Tech Stack: Python, PyPDF2, pdf plumber, FAISS, Sentence Transformers, Hugging Face, Jupyter Notebook
Description: Developed a Retrieval-Augmented Generation (RAG) system to answer user queries from Implemented end-to-end model pipeline using FAISS and Hugging Face Transformers with performance tracking metrics.

Entrepreneur – Website Development & Hosting Website link Dec 2024 – Jan 2025
Type: Freelance Projects | **Role:** Web Developer & Hosting Manager
Tech Stack: HTML, CSS, Python (Django), Hosting Management (cPanel)
Handled end-to-end website deployment, domain configuration, and server hosting.
Applied entrepreneurial skills to identify needs, deliver solutions, and manage ongoing updates.

ACHIEVEMENTS

As part of academic training, I presented the paper "Marine Debris" at the ICNEAI-2025 conference at SIMATS Engineering,and earned a Certificate of Appreciation. The paper has an ISBN of 978-81-984557-4-

EDUCATION

B-Tech in Computer Science Engineering (AI & ML**)** June 2021 – June 2025
VELS Institute of Science, Technology, and Advanced Studies (VISTAS) | Pallavaram, Chennai |

HSC/SSLC June 2018– March 2020
RSK International School, | Trichy, Tamil Nadu |