

JITEN BHALAVAT

College Park, MD

☎ 240-481-5543 ✉ jbha0504@umd.edu  [linkedin.com/in/jiten-bhalavat/](https://www.linkedin.com/in/jiten-bhalavat/)

Education

University of Maryland, College Park

Master of Science in Applied Machine Learning

Aug. 2024 – Expected May 2026

College Park, Maryland

Charotar University of Science and Technology (CHARUSAT)

Bachelor of Technology in Information Technology, CGPA: 8.97/10

Aug. 2020 – May 2024

Gujarat, India

Technical Skills

Languages and Databases: Python, SQL, MySQL, MongoDB, Pinecone, Qdrant.

Frameworks: PyTorch, HuggingFace, SkLearn.

Python Libraries: NumPy, Pandas, Matplotlib, Scikit-learn, Tensorflow, Seaborn, Keras.

ML Pipeline: Exploratory Data Analysis, Data-Preprocessing, Data Visualization.

Generative AI: Large Language Models (LLMs), Prompt Engineering, Fine-tuning.

Experience

Plutomen Technologies Pvt. Ltd.

Machine Learning Engineer Intern

Sept. 2023 – April 2024

Gujarat, India

- Designed and implemented a highly efficient retrieval-augmented generation (RAG) chatbot using LlamaIndex, Langchain, and multiple HuggingFace embeddings to enhance semantic search, storing data in vector databases like Qdrant and Pinecone.
- Integrated and evaluated multiple LLMs (ChatGPT / Claude / Gemini and open-source models), embeddings, and re-ranking models to optimize response accuracy and retrieval precision.
- Formulated a Flask API to enable seamless integration with a web platform, facilitating communication between the user interface and back-end retrieval system.

NXON Pvt. Ltd.

Machine Learning Engineer Intern

May 2022 – June 2022

Gujarat, India

- Developed a deep learning model with multiple Convolutional and pooling layers, followed by fully connected layers for classification.
- Applied dropout regularization, reducing overfitting and improving generalization by 7%.
- Attained high accuracy (over 99%) on the MNIST test set, demonstrating the effectiveness of CNNs for image classification tasks.

Projects

Easify - Intelligent YouTube Content Discovery Platform

Sept 2023 – Dec. 2023

- Engineered a web-based platform leveraging NLP and machine learning to analyze YouTube video comments, providing users with tailored channel and video recommendations, based on user-specific search keywords, improving content discovery efficiency.
- Architected a multi-tiered system with free and premium features, including video summarization, automated Q&A generation, and an AI chatbot, showcasing full-stack development skills.
- Achieved runner-up status and secured a Silver medal in a “2023 Solution Challenge” competitive event demonstrating the project’s innovation and market potential.

Brain tumor segmentation in MRI images using U-Net

May 2023 – August 2023

- Constructed a U-Net architecture deep learning model for brain tumor segmentation in MRI images, achieving 91% accuracy by employing binary cross-entropy loss and the Adam optimizer.
- Preprocessed MRI images through intensity normalization and resizing, and augmented the dataset with techniques like rotation, shifting, and flipping to enhance model robustness.

Leadership / Extracurricular

DataThrone Hackathon

Secured in the Top 10 Best Projects for the Presentation, out of 80+ Teams and 300+ Students.

March 2024

LJ University

Data Science Club

Team Lead

Sept. 2022 – Aug. 2023

CHARUSAT University

- Led educational initiatives reaching 50 students, increasing participation in data science workshops by 70%.
- Educated students on Data Science as a potential career path.
- Volunteered and managed a 6-day workshop on “AWS-Machine Learning” and handled logistics for attendees from various colleges.