

Abhinav Mishra

Machine Learning Engineer / Intern

Phone: +91-7807952061 Email: abhinav714b@gmail.com

GitHub: github.com/DrBig-Brain LinkedIn: linkedin.com/in/abhinavmishra05

Summary

Machine Learning and Data Science student with experience building end-to-end ML pipelines, training deep learning models, and deploying real-time AI systems. Strong foundation in computer vision, NLP, and MLOps with a focus on practical, measurable results.

Education

National Institute of Technology, Hamirpur 2024 – 2028
B.Tech in Electronics and Communication Engineering

The Scholars' Home, Paonta Sahib 2021 – 2023
Higher Secondary Certificate

Projects

Brain Tumour Detection and Classification

Technologies: PyTorch, CNN, Transfer Learning

- Achieved 96% MRI tumour classification accuracy using fine-tuned ResNet and VGG16 models.
- Improved generalization through data normalization and augmentation on thousands of MRI scans.
- Reduced training time by 30% using early stopping and learning rate scheduling.

InSPECt – Video Chat Assistant Chrome Extension

Technologies: FastAPI, WebSockets, Gemini API, Bootstrap

- Developed an AI-powered Chrome extension for real-time question answering over video content.
- Implemented a WebSocket-based backend enabling multi-turn, timestamp-aware conversations.
- Integrated multiple Gemini model variants with automated fallback handling for reliability.

Technical Skills

Programming Languages	Python, C++, JavaScript
Machine Learning	Scikit-learn, Regression, Classification, Feature Engineering
Deep Learning	PyTorch, TensorFlow, CNNs, RNN/LSTM, Transfer Learning, Hugging Face
Big Data	PySpark, Hadoop
Databases	SQL
MLOps	MLflow, Evidently, Experiment Tracking, Model Monitoring
Cloud Platforms	AWS (S3, EC2, RDS, Lambda, Kinesis)
Data Science	Pandas, NumPy, Matplotlib, EDA, Data Cleaning
DevOps & Containers	Docker, Kubernetes
Tools	Git, Linux, Jupyter, Google Colab, VS Code, Grafana
Backend	FastAPI, Flask
Frontend	HTML, CSS, Bootstrap, React

Experience and Leadership

SPEC – Society for Promotion of Electronics Culture 2025 – Present
Executive Member

- Led planning and execution of technical events for over 200 participants.
- Mentored junior students on machine learning concepts and project execution.

Team Vibhav – ECE Technical Club 2025
Volunteer

- Conducted technical workshops for over 100 students.
- Supported peer project development and hands-on learning initiatives.