

GARGI VIPAT

[Email](#) | M: (207) 332 9076 | [LinkedIn](#) | [GitHub](#) | [Kaggle](#) | Willing to Relocate

EDUCATION

Northeastern University	Sep 2024 – Dec 2026
Khoury College of Computer Sciences	GPA: 4.00
Master of Science in Artificial Intelligence	
Related courses: Algorithms, Machine Learning, Natural Language Processing	
Samrat Ashok Technological Institute	Nov 2020- Jun 2024
Bachelor of Technology in Computer Science and Engineering	GPA: 8.76
Related courses: Data Structures, Databases, Object Oriented Programming, Cloud Computing	

TECHNICAL KNOWLEDGE

Technical Skills:	Python, NumPy, Pandas, Data structures, Algorithms, Database Management Systems, Neural Networks
Technical Concepts:	Machine Learning, Data Science, LLM, Statistics, Probability, NLP, Deep Learning, Computer Vision
Tools and Software:	PyTorch, TensorFlow 2.0, SQL, AWS, LangChain, Visual Studio code, GIT, GitHub, Jupyter Notebook
Certifications:	IIT Delhi: Computer Vision, IIT Bombay: AI, Udemy: Deep Learning, Google: Python IT Automation

WORK EXPERIENCE

Northeastern University, USA	Jan 2025 – Apr 2025
Khoury College Teaching Assistant	
<ul style="list-style-type: none">Grade assignments, projects, and exams for 20+ students, providing accurate and constructive feedback on algorithmic concepts to enhance understanding and foster a strong desire to learn and improve problem-solving skills.Conduct 3+ hours of weekly class sessions and provide personalized guidance during office hours to clarify complex topics like dynamic programming, graph algorithms, and algorithmic problem-solving techniques, ensuring students develop structured thinking and perseverance.Enhance students' problem-solving skills, with 90% demonstrating improved performance, and contribute to developing 10+ teaching resources, showcasing effective planning and dedication to improving learning outcomes.	
Omdena – Iryss, India	Jun 2023 – Aug 2023
Junior Machine Learning Engineer	
<ul style="list-style-type: none">Led a cross-functional team of 15, designing and implementing robust machine learning pipelines, utilizing Python, Plotly, and Seaborn for scalable data collection (structured and unstructured data), pre-processing, and visualization, demonstrating strong planning and execution skills.Developed and optimized two machine learning models with 93% accuracy for predicting lung cancer treatment costs, exceeding benchmarks and improving decision-making and analysis, reflecting hard work and commitment to excellence.Facilitated smooth collaboration through effective communication, ensuring on-time project delivery, adapting to challenges with a learning mindset, and generating actionable insights for practical healthcare applications.	

PROJECTS

<u>NEO Threat Prediction using NASA dataset</u>	Sep 2024 – Dec 2024
<ul style="list-style-type: none">Designed a sophisticated machine learning pipeline including data processing, training and model tuning to predict Nearest Earth Object (NEO) hazards using NASA dataset with 79% accuracy.Addressed class imbalance using techniques like class weighting, ensuring balanced precision and recall.Optimized Random Forest hyperparameters with GridSearchCV and incorporated out-of-bag scoring for robust cross-validation, model performance assessment, and enhanced generalization to unseen data.Uncovered critical features, enhancing model insights for planetary defense strategies.	
<u>Computer Vision for Wildlife Conservation (Poacher Detection)</u>	Feb 2024 – Feb 2024
<ul style="list-style-type: none">Designed a Computer Vision model for real-time poacher detection using Custom trained YOLOv8 Model.Led a team of five developers in a nationwide hackathon, with an 84% accurate CV model for poacher detection.Collected and labeled 1,800+ images of animals native to Madhya Pradesh and human images to train the model.Secured 5th place in a nationwide hackathon. Demonstrated practical applications of AI for wildlife preservation.	
<u>Sentiment Analysis for Mental Health Monitoring</u>	Jan 2023 – Apr 2023
<ul style="list-style-type: none">Investigated the use of machine learning and NLP to monitor mental health through social media text analysis.Developed a pipeline for data preprocessing, feature extraction, and sentiment detection using supervised ML models.Achieved 75% accuracy on a dataset of 100,000 entries and deployed the solution on the cloud for scalability.Demonstrated potential for early detection of mental health issues through online behavioral analysis.	

ACTIVITIES

Secured 2nd position in Climate Resiliency Hackathon at NU (GIS Dashboard Solution)	Oct 2024
Top 5 in Kriyeta 2.0 All India Hackathon (Poacher Detection Solution)	Feb 2024