

ANSH POONIA

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EDUCATION	School of Engineering, BML Munjal University <i>Bachelor of Technology in Computer Science and Engineering</i> • GPA: 9.3/10.0, Rank: 1/159.	Gurugram, India 2020- 2024
PUBLICATIONS	<ol style="list-style-type: none">1. Ansh Poonia, M. Kishor, A.K. Prasada Rao. Designing of high entropy alloys with high hardness: a metaheuristic approach. <i>Scientific Reports</i>, 2024.2. M. Jain, Ansh Poonia, M. Kishor, A.K. Prasada Rao. Predicting Glass-forming-ability of bulk metallic glasses using Recurrent-Neural-network. <i>Materials Letters</i>, 2024.3. M. Kandavalli, A. Agarwal, Ansh Poonia, M. Kishor, A.K. Prasada Rao. Design of high bulk moduli high entropy alloys using machine learning. <i>Scientific Reports</i>, 2023.4. H. Puppala, K. Khatter, M. Dwivedy, Ansh Poonia. Urban scan: A novel system to assess the urban landscapes in the regions deprived of street-view services. <i>MethodsX</i>, 2023.	
THESIS	Probabilistic Prediction Of Glass Forming Ability Of Bulk Metallic Glasses <i>Supervisor: A.K. Prasada Rao</i> Developed and trained Bayesian Hierarchical model using the Metropolis-Hastings algorithm. Investigated uncertainty in the prediction of Critical Diameter.	
ASSISTANTSHIP	Prof. A.K. Prasada Rao • Worked on multiple projects applying machine learning techniques to materials science, resulting in publications in peer-reviewed journals. • Designed a composition optimization framework utilizing a meta-heuristic search algorithm for faster alloy discovery.	2023.02 - 2024.07
	Prof. Kiran Khatter • Contributed to the development of algorithms for resolving image overlaps and segmenting greenery and sky in urban imagery. • Developed a program to autonomously generate panoramas from a video.	2022.06 - 2023.03
EXPERIENCE	<i>Data Science Intern</i> Kantar Analytics Practice Chennai, India • Led the development of a compiler to transform Stan models into PyTorch computational graphs. • Develop multiple forecasting models and aggregators.	2024.09 - Ongoing
	<i>Web Development Intern</i> WaChatty Gurugram, India • Designed a web-based application using JointJS to create chatbots through a flowchart-based interface. • Implemented Flask-based microservice architecture containerized using Docker.	2023.06 - 2023.07
	<i>Data Science Intern</i> Kantar Pune, India (Remote) • Devised innovative approaches for extracting tabular data from pdf files using regex, and pattern recognition. • Optimized and redesigned existing source code files and documentation.	2022.06 - 2022.08
AWARDS	• Academic Excellence Medal , BML Munjal University • Merit Scholarship , BML Munjal University	2024.09 2020.10

LEADERSHIP ROLES

President | *Science and Technology Appreciation Club*

- Organized introductory workshops and quizzes for first-year computer science students.
- Co-organized a workshop on sustainable technological innovation, attended by 150 students.

RESEARCH PROJECTS

Automatic Panorama creation from Video

- Created an efficient algorithm utilizing a pre-trained MobileNetV2 to measure the similarity between two consecutive frames by comparing their feature map, surpassing the computational speed of the SSIM approach by a factor of 20.
- Developed a program to autonomously generate panoramic imagery from high-resolution video using the technique outlined in the paper "Automatic Panoramic Image Stitching using Invariant Features;" and created a data-pipeline to sequentially process each frame in order to improve efficiency for low-end devices.

Facebook-Ego Recommender System

- Developed and trained a Graph Neural Network using the SAGEConv architecture on the Facebook Ego dataset to recommend new connections for existing users within a social network graph.
- Trained a binary classifier to determine whether an existing node, based on its aggregated features and those of its neighbors, should be recommended to a new node that lacks any neighbors.