Mohammad Ali Jauhar

Curriculum Vitae

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🌐 *majauhar.github.io*

Education

2023-24 **Master of Science**, *Applied Mathematics (Program MVA - Mathematics, Vision, Learning)*, École Normale Supérieure Paris-Saclay, Université Paris-Saclay, FR, **Relevant Courses**: Convex Optimisation, Probabilistic Graphical Models, Geometric Data Analysis, Graphs in Machine Learning, Deep Learning, Algorithms for Speech and NLP

2017–2021 **Bachelor of Technology**, *Computer Engineering (First Division with Honours)*, Aligarh Muslim University, IN

Conference Publications

○ **Meta Perturbed Re-Id Defense,** *A Verma, A V Subramanyam, M A Jauhar, D Gera and R R Shah*, 2023 IEEE International Conference on Multimedia and Expo (ICME), pp. 2597-2602, doi: 10.1109/ICME55011.2023.00442.

Non-Refereed Publications

○ **BLOOM: A 176B-Parameter Open-Access Multilingual Language Model ,** *BigScience Workshop*, 2022, arXiv: 2211.05100

Research Experiences

07/24-10/24 **Research Intern**, Naver Labs Europe, Natural Language Processing Group

○ **Explored Robust Speech Recognition (ASR) Systems through the Lens of Multilingual Speech Models & Representation Learning**

○ **Discovered Fundamental Issues Related to Generalization with Current Approaches to Robust ASR Systems**

11/21–09/22 **Research Assistant**, Indraprastha Institute of Information Technology Delhi, Visual Conception Group, under supervision of Dr A V Subramanyam

○ **Worked on Object Re-Identification and Adversarial Training Problems; Developed and Managed Lab's Website**

06/21-08/21 **Summer Intern**, Indian Institute of Information Technology Allahabad, Network Security and Cryptography Lab, under supervision of Dr Soumyadev Maity

○ **Explored Privacy-Preserving ML Tools and Techniques (Federated Learning, Homomorphic Encryption, etc.)**

Other Experiences

07/24-09/24 **AI Safety: Alignment Course**, BlueDot Impact

07/23	**Computational Neuroscience Summer School**, Neuromatch Academy
11/22-02/23	**Open Source Contributor**, OpenMined, Engineering Team
08/21	**Deep Learning Summer School**, Neuromatch Academy
03/21-04/21	**Reinforcement Learning Virtual School**, Artificial and Natural Intelligence Toulouse Institute (ANITI)
01/21	**ACM India Winter School**, ACM India & Indian Institute of Technology Delhi, Fairness, Accountability, and Transparency in AI

Projects

2024	**Deep Generative Modelling with Missing not-at-random Data**, *Masters Course Project*
2024	**Multi-Instance Learning Techniques for Lymphocytosis Classification**, *Masters Course Project*
2023	**Single Image Super-Resolution: Efficiency and Real-World Performance**, *Masters Course Project*
2023	**Making a Case for Systolic Arrays for Graph CNN Inference**, *Masters Course Project*
2023	**Decoding Spontaneous Behaviour from Neural Activity**, *Computational Neuroscience Summer School Project*
2021	**Real-time Messaging Application**, *Personal Project*
2021	**Amazon Rainforest Land use Determination using Satellite Imagery**, *Deep Learning Summer School Project*
2020	**Calculator using Lex & Yacc**, *Bachelors Course Project*
2019	**Learning Platform for Computing courses with Editor and Debugger**, *Bachelors Course Project*

Skills

- **Programming:** C, C++, Python (Intermediate - Advanced); Java, Javascript, Bash, Haskell (Beginner)
- **Others:** NumPy, Pandas, PyTorch, Seaborn, PostgreSQL, Scikit-Learn, AWS, Firebase, Flask (HTML, CSS), Jax(beginner), Google Cloud, LaTeX, HuggingFace Libraries

Activities & Honours

- ELLIS Workshop on "Robust ML" (as an Oxford Stats fellow), Helsinki, Finland, June 2024
- Rice Global Workshop on "Applied Algorithms for ML" (as a Rice fellow), Paris, France, June 2024
- Privacy Enhancing Technologies Symposium, Lausanne, Switzerland, July 2023
- IPFS Thing 2023, Brussels (as an IPFS scholar), Belgium, Apr 2023
- ACM Fairness, Accountability, and Transparency (FAccT) Conference, Online, Mar 2021