ARINDAM MAJEE

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Education

2019 – 2023 : **Bachelor of Engineering (Hons), Electronics and Telecommunication Engineering**, *Jadavpur University*, Kolkata.
CGPA: 9.0/10 (Percentage: 86.12%)

2017 – 2019 : **Higher Secondary Examination**, *Talajuri Srimati High School*, West Bengal Council of Higher Secondary Education, Subjects – Mathematics, Physics, Chemistry, Biology, English, Bengali.
Percentage: 92.6%

Publications

Visit my *Google Scholar* profile for an updated list of my publications- https://scholar.google.com/citations?hl=en&user=sqGrHcoAAAAJ

* denotes equal contribution, first author's name is in bold format and my name is underlined.

Pre-prints

2024 ***Arindam Majee***, *Avisek Gupta, Sourav Raha, Swagatam Das*, Enhancing MRI-Based Classification of Alzheimer's Disease with Explainable 3D Hybrid Compact Convolutional Transformers, (submitted in IJCNN 2024, Yokohama, Japan).

Journal Articles

2022 ***Somnath Chatterjee***, **Shreya Biswas, *Arindam Majee, Shibaprasad Sen, Diego Oliva, Ram Sarkar*, Breast cancer detection from thermal images using a Grunwald-Letnikov-aided Dragonfly algorithm-based deep feature selection method, Computers in biology and medicine, Volume 141, pages 105027, Elsevier, 2021, https://doi.org/10.1016/j.compbiomed.2021.105027.

2021 ***Shreya Biswas***, *Somnath Chatterjee, Arindam Majee, Shibaprasad Sen, Friedhelm Schwenker, Ram Sarkar*, Prediction of COVID-19 from Chest CT Images Using an Ensemble of Deep Learning Models, Appl. Sci. 2021, 11, 7004. https://doi.org/10.3390/app11157004.

Book Chapter

2022 ***Arindam Majee***, *Shreya Biswas, Somnath Chatterjee, Shibaprasad Sen, Seyedali Mirjalili and Ram Sarkar*, Moth-Flame Optimization-Based Deep Feature Selection for Cardiovascular Disease Detection Using ECG Signal, Handbook of Moth-Flame Optimization Algorithm, CRC press, pages 129-151, (doi: https://doi.org/10.1201/9781003205326-10).

Technical Reports

2024 **Arindam Majee**, *Swagatam Das*, User Manual of SLURM Based DeepOps Cluster, (Internal document of TCG CREST. Will make it publicly available soon).

2022 ***A. Majee***, *R. Saha, S. Roy, S. Roy Chaudhury, S. Mandal, S. Chatterjee*, Swarm UAVs Communication, https://shorturl.at/pzAQR.

Experience

Jan 2024 – present
Software Development Engineer - I, *Amazon India, Bangalore.*
- Working as a SDE-I at Last Mile Automation Team.
- Building automation tools for our delivery stations.

Jun 2023 – Jan 2024
Project Assistant, *Institute of Advancing Intelligence (IAI), The Chatterjee Group Centre for Research & Education in Science & Technology (TCG CREST).*
- Built a HPC system by clustering 6 GPUs with the help of SLURM and NVIDIA DeepOps.
- Developed an AI-based system which uses historical stock prices, tweets, news to forecast the stock market.
- Built an AI-based neuro-degenerative disease (Alzheimer) detector from Brain Connectome graphs and 3D MRI scans. Able to achieve an SOTA accuracy of 95.6% on ADNI dataset for 3 class classification (paper under submission).
- Built an reinforcement learning powered LUDO game.

Jun 2022 – Aug 2022
MITACS Globalink Research Intern, *Ryerson University, Toronto.*
- Worked as a remote intern under the supervision of Prof. Farrokh Janabi Sharifi of the Mechanical Department, Ryerson University.
- Designed a model of a Unmanned Aerial Manipulator with robotic arm for performing long distance delivery tasks using Solidworks.

Skills

Programming	C, C++, Python, C, C++, MATLAB, JavaScript, Java
HDLs	Verilog, Embedded C
Design Tools	Simulink, CircuitMaker, Multisim, LTSpice, Tanner EDA, Mentor Graphics, Xilinx, Solidworks
Frameworks & Libraries	TensorFlow, Keras, Numpy, Pandas, OpenCV, SciPy, Matplotlib, Sci-Kit Learn, Pillow, Seaborn, Pytorch
Web	HTML5, CSS3, Flask
Database	MySQL, SQLite, MongoDB
Platform	Linux, Windows, Arduino
Cloud	AWS
Soft Skills	Leadership, Event Management, Writing, Public Speaking, Time Management

Projects

Jan 23 – Dec 2023
Linear Prediction of Video Sequences and Object Tracking, Developed a deep neural architecture for accurate video sequence prediction and object tracking. Collaborated with Shreya Biswas under the guidance of Prof. Amit Konar and Dr. Pratyusha Rakshit.

March 2020
Autonomous Ground Robot with Obstacle Avoidance, Designed and built a two-wheeled autonomous robot capable of navigating black paths using an infrared sensor and PID control. The robot successfully navigated a 10-meter course with 95% accuracy in obstacle avoidance. Here are some exciting photos of our bot. Visit here - https://sites.google.com/view/arindam-majee/projects.

Fellowships & Awards

Jun 2023
Awarded First Prize in the **Moore Memorial Poster Competition-2023** organized by the IEEE Solid-State Circuits Society, Kolkata section.

2019 – 2023
JBNSTS Senior Fellowship, Jagadish Chandra Bose National Science Talent Search (JBNSTS) senior fellowship is a prestigious scholarship scheme initiated by the Government of West Bengal to encourage young students to pursue STEM as a career after class 12th.

2022
Awarded the *MITACS Globalink Research Fellowship* for a fully funded research internship at Ryerson University, Toronto.

2017 –2019 **JBNSTS Junior Fellowship,** Jagadish Chandra Bose National Science Talent Search (JBNSTS) junior fellowship is a prestigious scholarship scheme initiated by the Government of West Bengal to encourage young students to pursue science as a career after class 10th.

Certificates

Nov 2020 **Algorithmic Toolbox**, *UC San Diego*, Coursera, View the certificate here-.
https://www.coursera.org/account/accomplishments/certificate/TQ6ENR8QA348

Nov 2020 **Deep Learning Specialization**, *DeepLearning.AI*, Coursera, View the certificate here-.
https://www.coursera.org/account/accomplishments/specialization/certificate/HKZENCZJV2DD

Nov 2020 **Image and Video Processing: From Mars to Hollywood with a Stop at the Hospital**, *Duke University*, Coursera, View the certificate here-.
https://www.coursera.org/account/accomplishments/certificate/JJQA987NNRQY

Oct 2020 **Natural Language Processing with Classification and Vector Spaces**, *DeepLearning.AI*, Coursera, View the certificate here-.
https://www.coursera.org/account/accomplishments/certificate/K7LA2Y399TUN

August 2020 **Introduction to MATLAB**, *Vanderbilt University*, Coursera, View the certificate here-.
https://www.coursera.org/account/accomplishments/certificate/NJ5WTPVLQUSC

May 2021 **Introduction to Quantum Computing Course**, *The Coding School*, sponsored by IBM, View the certificate here - https://drive.google.com/file/d/1JFYQvpZs6hWucHi07-WdD5xpjwBB7ymu/view.

Workshops/Technical Events Attended/Organized

December 15-17, 2022 **IndoML 22**, *Attended Indian Symposium on Machine Learning (IndoML 22)*, held at IIT Gandinagar.

April 14-16, 2022 **Srijan 22**, *Organised the annual Techno-managemental fest*, **Srijan** *of Jadavpur University*, at Salt Lake campus, Jadavpur University.

Position of Responsibility & Extracurricular Activity

2019 – 2023 **Class Representative (CR) of ETCE 2019–2023 batch**, Jadavpur University.

2020 – 2023 **Executive member of Jadavpur University Science Club (JUSC)**, Jadavpur University.

2020 – 2022 **Executive member of IEEE Student Branch**, Jadavpur University.