

ARINDAM MAJEE

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

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

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>).

Experience

- Jun 2023 – present **Project Assistant, Institute of Advancing Intelligence (IAI), The Chatterjee Group Centre for Research & Education in Science & Technology (TCG CREST).**
- Working as a full-time researcher under the supervision of Prof. Swagatam Das.
 - Building an AI-based system which uses historical stock prices, tweets, news to forecast the stock market. The stock market sentiment analyzer use Graph Neural Networks to find relation between any two different company' stock.
 - I am also building an AI-based neuro-degenerative disease detector from Brain Connectome graphs.
- Jul 2022 – **Final Year Research Assistant, AI Lab, ETCE Department, Jadavpur University, Kolkata.**
- Jun 2023
- Worked as a final-year research assistant as a part of the course curriculum under the supervision of Prof. Amit Konar & Dr. Pratyusha Rakshit.
 - Built a reinforcement learning-based object-tracking system.
- Jun 2022 – **MITACS Globalink Research Intern, Ryerson University, Toronto.**
- Aug 2022
- Worked as a remote intern under the supervision of Prof. Farrokh Janabi Sharifi of the Mechanical Department, Ryerson University.
 - Performed literature survey which led to the development of a new UAM model using Solidworks.

May 2020 – **UG Research Assistant**, CSE Department, Jadavpur University.

- Sept 2021
- Worked as a UG research assistant under the supervision of Prof. Ram Sarkar.
 - My work was focused on Deep Learning, Medical Image Classification & Segmentation, and Bio-inspired algorithms.
 - Published 2 international journal papers including one in Elsevier and one book chapter.

Skills

Programming	C, C++, Python, C, C++, MATLAB, JavaScript, Java
Software	Data Structure & Algorithms, Coding, Software Development
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, PHP, Flask
Database	MySQL, SQLite
Platform	Linux, Windows, Arduino
Soft Skills	Leadership, Event Management, Writing, Public Speaking, Time Management

Projects

- January 23 - present **Linear Prediction of Video Sequences and object tracking**, This is my final year B.E. project which I am doing with my batchmate Shreya Biswas under the guidance of Prof. Pratyusha Rakshit of my department. Here we are developing a deep multi-modal architecture for accurately predicting the next sequence of a video.
- March 2020 **Autonomous Ground Robot with Obstacle avoidance**, Here we developed a 2-wheeler autonomous bot, which senses black paths using an infrared sensor. And then moves along the searched black path and controls its movement using PID controlling technique. 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/1JFYQvpZs6hWuchHi07-WdD5xpjwBB7ymu/view>.

Workshops/Technical Events Attended/Organized

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