Adithya Jairam Iyer   **16D110011**
Metallurgical Engineering and Materials Science   **Dual Degree (B.Tech. + M.Tech.)**
Indian Institute of Technology, Bombay   **Gender: Male**
Specialization: Metallurgical Process Engg.   **DOB: 03-01-1999**

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2021	

ACADEMIC ACHIEVEMENTS

- Selected as an Exchange Student **(4/800+)** at **Technical University of Denmark (DTU)**, Copenhagen ['19]
- Ranked **8th** in Maharashtra in the **Regional Mathematics Olympiad** conducted by the Bhaskaracharya Pratishthana ['15]

ENTREPRENEURSHIP PROJECT

Copernicus Accelerator, European Space Agency (ESA) | Budnip   [Nov'19-Present]
*Abstract titled 'Comparative Study of **Neural Networks** and **Machine Learning Models** for **Winter Wheat Crop Classification** in Denmark' accepted as an e-poster at **ESA EO Φ-week 2020***

- **Winner** of the **Oi-X Hackathon** jointly conducted by **DTU Skylab** and **Copernicus Programme** in Copenhagen, Denmark
- Using **Deep Learning** to create a **proof of concept** to identify **crop features** by analysing **satellite imagery** from Sentinel 2
- **Attended** the start-up bootcamp in **Helsinki, Finland** as part of the **European Space week** and selected to be a part of the **Copernicus Accelerator**, a platform by the **ESA** for a period of **1 year**

KEY PROJECTS

Statistical Analysis of Microstructural Images | Prof. M. P. Gururajan | Master's Thesis   [Apr'20-Present]
- Computed **2-point correlations** of images post processing and **benchmarked** results with state of the art **python** library
- Implemented a **Union-Find** based Hoshen-Kopelman **clustering algorithm** for **images** with periodic boundary conditions
- Calculated features such as **Interfacial velocity** and **precipitate size distribution** by incorporating **level set methods**
- Introduced **convexity** measures in binary microstructures through **Monte Carlo methods** to better understand evolution

Missing Data Importance Weighted Autoencoder (MIWAE) | Self project | Deep Learning   [Sep'19-Nov'19]
- Implemented **IWAE** on **MNIST** dataset using **Pytorch** to get a clear understanding of generative models and autoencoders
- Generated mock data by removing **20%** of pixels from the MNIST Dataset; used **MIWAE** to impute the training images
- Designed the **MIWAE** model by training on incomplete data; produced restored images from the test dataset

PROFESSIONAL EXPERIENCE

EXL Analytics | Machine Learning and Data Science Intern | Gurugram   [May'19-Jul'19]
- Automated **credit risk estimation** and **segmentation** of merchant and consumer accounts through **NLP** and **Machine Learning**
- Built **50+** financial variables that quantified credit risk by pre-processing and modifying over **3 million** data entries
- Derived key **business insights** and **probability of default**; improved Gini by **500** basis points over existing credit risk models

NATIONAL AND INTERNATIONAL DEBATE

Prague Open, Czech Republic	- **Semi-Finalist** and **5th** best team - Defeated top European teams; **7th** best speaker, beat **50+** speakers
COEP Debate, Pune	- Finalist
SMC Debate Chennai, Inter-IIT'2018	- Semi-Finalist

LEADERSHIP EXPERIENCE

Core Team Member | The IIT Bombay Debate   [Mar'18-Oct'18]
- Organized the largest **British Parliamentary** debating tournament in India, budget of INR **3.6 Lakhs, 250+** participants
- Achieved a **60% y-o-y** increase in participation from India, leading to the biggest version of the IITB Debate ever organized

Teaching Assistant | MM-217: Data Analysis and Interpretation   [Aug'20-Present]
- Part of a team of senior students responsible for assisting professors to conduct online classes with **100+** students smoothly

TECHNICAL PROFICIENCY

- **Programming Languages:** Python(Pytorch, sklearn), JAVA, C++, R
- **Certifications and Interests: Computer Vision and Image Analysis** by Microsoft; Deep Learning, Image Processing, Statistics

EXTRACURRICULARS

- Overall winner of **Digi Dive-X,** a AI in health technology and medicine hackathon held in **DTU, Copenhagen** ['19]
- Represented **Hostel 9** for 3 consecutive years in the annual **Inter Hostel Football General Championship** ['17-'20]
- Hobbies include reading, parliamentary debating, watching football (**FC Barcelona**) and travelling (travelled **15+** countries)

Scholastic achievements and extracurricular activities are not verified by the Placement Cell