Atin Bainada
Computer Science & Engineering
Indian Institute of Technology Bombay

190050024
UG Second Year
Male
DOB: 17/11/2002

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2021	8.15
Intermediate/+2	RBSE	Aabhas Senior Secondary School	2019	84.60
Matriculation	RBSE	Nitin Senior Secondary School	2017	94.83

Pursuing Minors in **Data Science**

Scholastic Achievements

- Obtained a percentile of **98.82** in Joint Entrance Exam, Advanced among **1,70,000** candidates *(2019)*
- Secured a percentile of **99.88** in Joint Entrance Exam, Main among **1.14 million** candidates *(2019)*
- Recipient of the prestigious **Kishore Vaigyanik Protsahan Yojna** (KVPY) Fellowship awarded by the Department of Science and Technology, Government of India *(2018)*

Key Projects

Red Plag *Autumn 2020*
Guide: Prof. Amitabha Sanyal — Course Project *IIT Bombay*

- Developed a **Cloud Based** rudimentary **Plagiarism Checker** using **Django** for back-end and HTML for front-end where authenticated users have access to the services of the plagiarism checker
- Implemented user services like upload, download, change password, login and logout using Django authentication system and represented the results graphically via Surface Plots using **Matplotlib**
- Implemented the **Longest Common Subseqence** algorithm for document fingerprinting and calculating the **Covariance Matrix** for set of source files

Why the hype around GAN's *Summer 2020*
Seasons of Code — Web and Coding Club *IIT Bombay*

- Implemented **Deep Convolutional Generative Adversarial Network** (DCGAN) from scratch using **PyTorch** framework and trained it on **CelebA** dataset on Kaggle to generate **Deepfakes**
- Created a **Convolutional Neural Network** using **PyTorch** and trained it on **MNIST** dataset of hand-written digits and achieved an accuracy of **99.2%** on the Kaggle Digit Recognizer competition

Image Processing and Graph Plotting *Autumn 2020*
Guide: Prof. Amitabha Sanyal — Course Project *IIT Bombay*

- Utilized the **KMeans++** algorithm from the python **SciPy** library to smoothen high contrast images by replacing all color vectors in an image with their **K Cluster Centroids**
- Applied linear regression on **Levitt's Metric** to predict the end of covid pandemic in India
- Plotted 2D, 3D surface plot of any continuous function and their derivatives using SciPy, Matplotlib

Food Ordering Web Application *Summer 2020*
Self Project

- Developed a food ordering **Web Application** using HTML, CSS, JavaScript and **Django**
- Used **Function Based Views** for cart, checkout pages and used **JavaScript** for add to cart feature
- Implemented an authentication system to login or register using Django **Authentication Forms**
- Created multiple Django Models to comfortably manage the app using admin page

Observational Astronomy *Summer 2020*
Summer of Science — Math and Physics Club *IIT Bombay*

- Explored the field of **Astronomy** and **Astrophysics** by learning about basic concepts like **H-R Diagram**, stages of **Stellar Evolution**, Celestial Coordinate System and **Density Wave Theory**
- Observed the night sky on a regular basis and tried to find **Deep Sky Objects** like The Orion Nebula, Beehive Cluster, **Hercules Globular Cluster** (Messier 13) using **Star Hopping** technique

Position Of Responsibility

Teaching Assistant *Spring 2021*
CH 107 — Physical Chemistry *IIT Bombay*

- Among the **32 students** selected across all batches for teaching a class of **42 first-year students**
- Coordinated with the Professor to conduct regular **tutorial sessions** and **evaluate exam papers**
- Mentored the academically struggling students by conducting regular **help sessions**

Technical Skills

Programming Languages	Python(fluent), C, C++, Java, LaTeX, Bash, MATLAB
Softwares & OS	AutoCAD, Android Studio, Bootstrap Studio, SolidWorks, Ubuntu
Web Development	HTML, CSS, JavaScript, Jekyll, Django, Angular
Data Science	TensorFlow, PyTorch, Keras, Numpy, Matplotlib, Pandas

Courses Undertaken

Computer Science	Data Structures and Algorithms + Lab , Software Systems Lab, Discrete Structures, Data Interpretation and Analysis, Logic for Computer Science*, Digital Logic Design + Lab*, Design and Analysis of Algorithms*, Computer Networks + Lab*, Abstractions and Paradigms in Programming Language, Computer Programming and Utilization
Mathematics	Calculus, Linear Algebra, Mathematical Structures for Control, Mathematics for Machine Learning: PCA† (Imperial College London)
Physics	Quantum Physics and Applications, Electricity and Magnetism, Understanding Einstein: The Special Theory of Relativity† (Stanford University), Kinematics: Describing the Motions of Spacecraft† (University of Colorado Boulder)
Astronomy†	Astro 101: Black Holes (University of Alberta), The Evolving Universe (Caltech), Astronomy: Exploring Time and Space (University of Arizona)
Machine Learning†	Deep Learning Specialization, Convolutional Neural Networks in TensorFlow (deeplearning.ai), ML with TensorFlow on Google Cloud (Google Cloud), Data Analysis and Visualization with Python, Deep Learning with Keras (IBM)
Miscellaneous	Introduction to Electrical and Electronic Circuits, Organic and Inorganic Chemistry, Physical Chemistry, Engineering Drawing, Biology

†*online courses(Coursera), *to be completed by April 2021*

Extracurriculars

- Surpassed typing speed of **68 WPM** on Nitro Type, an online **Competitive Typing** platform *(2020)*
- Completed LaTeX, Front-end web development courses under Learners' Space, IIT Bombay *(2020)*
- Committed to **Green Campus** under **National Service Scheme**, IIT Bombay and planted trees, reused plastic waste and prepared a presentation on **The Miyawaki Method** of foresting *(2019-20)*
- Participated in the **RC Plane** Competition organized by Aeromodelling Club, IIT Bombay *(2019)*
- Participated in **Strategy Wars** competition organized by Finance Club, IIT Bombay *(2019)*