HARSHIT JAITLY

Course : **B.E. (Hons.)**, Electronics and Instrumentation, 2021
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ACADEMIC DETAILS

COURSE	INSTITUTE/COLLEGE	BOARD/UNIVERSITY	SCORE	YEAR
CLASS XII	MV Convent Inter College, Allahabad	Central Board of Secondary Education.	82.8 %	2016
CLASS X	St. Joseph's College, Allahabad	Indian Certificate of Secondary Education	90 %	2014

SUMMER INTERNSHIP / WORK EXPERIENCE

Intern, Samsung Electronics **Jul 2021 - Present**

- Part of The Data Intelligence Lab at the Services PF and Big Data Group.
- Researched techniques for Low Latency and Efficient Content-Based Image Retrieval in Large-Scale Image Databases using Feature Extraction.
- Designed Feature Extracting Framework based on Deep-Learning using Convolutional Neural Networks.
- Implemented Rapid Search Methods (Hierarchical Navigable Small World Graphs, Inverted File Indexing, Product Quantization, Locality Sensitive Hashing) for Quick Retrieval in a highly dense Feature Space.
- Built an end-to-end recommendation system by scripting and abstracting the complete pipeline as a RESTful API.
- Domain: Digital Image Processing, Deep Learning, Computer Vision, Database
- Tools/Technologies - Tensorflow, Python, Keras, PyTorch, Anaconda, Flask, Docker, Postman, Streamlit

PROJECTS

Pathogenicity Prognosis of Novel DNA and Missense Variants - Bioinformatics , Deep Learning **Aug 2020 - Mar 2021**

- Novel Pathogens are rapidly increasing today owing to their fast-paced evolution and advances in DNA Sequencing and Metagenomics. With recent developments, it is now possible to modify bacteria for malicious purposes.
- The traditional approach for the classification of new species and missense variants relies on finding the Lowest Common Ancestor in a pre-defined database.
- Developed a novel approach to tackle this problem, eliminating the use of the sequence and its mapping and converted the problem entirely into a statistical one employing the sequence to calculate certain parameters and generating class labels on the basis of their correlation and mutual interaction.
- The designed algorithm relies on utilizing statistical correlation between "Frequency of K-mers" in the sequence under study and exploiting the arbitrage to perform class prediction.
- The Neural Network model implemented and tuned, alongside a classifier was able to correctly classify 94% of the species under study.
- Tools - TensorFlow, Python3, Keras, Anaconda, Scikit-Learn, Pandas, Matplotlib, Numpy
- Project Guide - Dr. Sumit Biswas, Deparmtent of Biology, BITS-Goa

Subjects / Electives	Computer Programming, Object Oriented Programming, Foundations of Data Science, Development Economics, International Relations, Introductory Philosophy
Technical Proficiency	C++, Python3, C Programming, Data Structures, Algorithms, Deep Learning, Machine Learning, SQL, Microsoft Office, Technical Analysis, Public Relations

AWARDS AND RECOGNITIONS

Reliance Infratel Scholarship AY 2020-2021 | Reliance Infratel **Nov 2021**

- 1 of the 3 students to be selected for the Annual Reliance Infratel Scholarship for AY 2020-2021.

Part-Time Research Consultant | WorldQuant | WorldQuant **Mar 2019**

- Qualified to Gold (tier 1) on the WorldQuant Challenge by securing more than 10,000 points on the WorldQuant Virtual Research Centre's Websim platform and was offered the position of a part-time Research Consultant at WorldQuant VRC.
- Built strategies based on fundamental analysis, momentum, reversion, and statistical arbitrage using a combination of data sets including price volume, fundamentals, news, sentiment, and other data sets available exclusively on the platform.
- Developed alphas having high returns, Sharpe ratio (>2.0), low drawdown, and low correlation to the existing strategies.

EXTRA CURRICULAR ACTIVITIES

Football, Flow Arts, Balisong Knife, WaveBoarding, Dapostar