AYUSH GUPTA

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EDUCATION

Bachelor and Master of Technology in Computer Science and Engineering   May 2014 - July 2019
Indian Institute of Technology, Delhi, CGPA: 8.01/10

INTERNSHIPS

Works Applications Co. Ltd., Tokyo: *Enterprise User Search for Scheduler*   May 2017 - July 2017
- Developed a User recommendation engine in Apache Spark using ensemble of SVD and Co-Occurrence data.
- Implemented and tested other techniques like Hierarchical User Clustering and Collaborative Filtering.
- Devised strategy to test and save Model in RedisDB and fetch recommendations efficiently in Front End.

Goldman Sachs, Bangalore: *Feature Recognition in Financial greeks*   May 2018 - July 2018
- Implemented targeted checks for some financial security types by observing coarse expected behaviors of greeks
- Built framework for data driven checks in standard regulatory stress scenarios using outlier, clustering algorithms

Loughborough University, UK: *Emotions and Meanings in Dance Movements*   May 2016 - July 2016
- Developed Human movement simulation tool using quaternion data of IMUs for mapping patterns to meaning.
- Explored algorithms to extract meanings out of movements by the functional grammar developed using SFL.

PROJECTS

Poverty Mapping using Satellite Data (Prof. Aaditeshwar Seth)   July 2017 - May 2018
- Built Models for census labels prediction at village granularity using transfer learning; CNNs trained from scratch
- Developed Built-up area classifers in GEE using Random Forests, Cart and SVM on Landsat, Nightlights data

A basic functional shell (Prof. Sorav Bansal)   Jan 2017 - May 2017
- Implemented functionalities like port and memory mapped IO, and threads via stackless coroutines and fibers
- Added non-preemptive and preemptive scheduling and a Single Producer Single Consumer queue for concurrency

Cloud Computing Projects (Prof. S C Gupta)   July 2017 - Nov 2017
- Designed Schemes for Consolidation, Partitioning, Replication, SnapShoting for Simulation of Disk Virtualization
- Deployed Mini Social Application on Azure; Designed user databasing schemes using Object and Table Storage

Blockchain Projects (Prof. Vinay Ribeiro)   Jan 2018 - May 2018
- Built P2P cryptocurrency simulator, designed blocks, transaction broadcasting schemes with proper fork resolution
- Deployed Smart Contract for Media Distribution on Ethereum Testnet with offchain encryption-decryption UI

TECHNICAL SKILLS

Programming Languages	C++, JAVA, Python, MATLAB, Scala, R, Bash Scripting, Standard ML, JavaScript
Frameworks and Libraries	Scikit-learn, TensorFlow, Android Studio, Apache Spark, CUDA, OpenMP

SCHOLASTIC ACHIEVEMENTS & HACKATHONS

- **Rivigo Coding Championship**: National Runner-Up in NP-Hard Problem Solving Contest(8000+ teams) 2018
- **Facebook Hacker Cup**: Reached Round 2 by clearing qualification and Round 1 in the Last Edition.   2017
- **Asian Physics Olympiad**: Won bronze medal at the 15th Asian Physics Olympiad, Singapore.   2014
- **KVPY**: Secured All India Rank-14 and awarded prestigious fellowship by IISc,Bangalore.   2012

COURSE WORK

Parallel and Distributed Systems, Computer Networks, Database Management Systems, Analysis & Design Of Algorithms, Operating Systems, Cloud Computing Fundamentals, Wireless Networks, Artificial Intelligence, Software Design Practices, Discrete Mathematical Structures, Probability & Stochastic Processes, Microeconomics.