AYUSH GUPTA

Senior Undergraduate ⋄ https://www.linkedin.com/in/ayushgupta12/ ⋄ ayushabg@gmail.com ⋄ +91-8130074335

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 2019
- 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

Canonicalization of Open Knowledge Graphs (Prof. Srikanta Bedathur) July 2018 - Present
- Using Open-IE's extensive coverage to help in data annotation without any restriction to corpus domains
- Improving entity and relation phrase canonicalization using word embedding and source information (in OpenKBs)

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

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++, Python, JAVA, 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

Discrete Mathematical Structures, Probability & Stochastic Processes, 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, Microeconomics.