Ayush Gupta

Senior Undergraduate | https://ayushgupt.github.io/
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EDUCATION

IIT DELHI
B.Tech. and M.Tech. (Dual Degree) in Computer Science
Expected June 2019| New Delhi, India
Junior Undergraduate
Cum. GPA: 8.0/10

COURSEWORK

UNDERGRADUATE
Machine Learning
Deep Learning
Artificial Intelligence
Numerical Algorithms
Operating System
Theory of Computation
Software Design Practices
Computer Networks
Parallel and Distributed Systems
Database Management Systems
Analysis and Design of Algorithms
Discrete Mathematical Structures
Probability and Stochastic Processes

SKILLS

PROGRAMMING
Over 5000 lines:
Java • C++ • Python • Scala
Familiar :
Javascript • SML • R • Matlab • ARM
Technologies:
Android • Codeigniter • Linux and Bash Scripting • Apache Spark • PostgreSQL

LINKS

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Github:// **ayushgupt**
LinkedIn:// **ayushgupta12**
Facebook:// **ayush.kygo**
YouTube:// **ayushgupta**
Quora:// **Ayush-Gupta**

LINKS

POSITIONS

Student Publication IITD
Technical Editor
Alumni Association
Content Executive
HINDI SAMITI
Hostel Representative

EXPERIENCE

GOLDMAN SACHS PVT. LTD. |Summer Analyst Intern
May 2018 - July 2018
Currently doing a 10-week internship in Risk Division for summers

WORKS APPLICATIONS CO. LTD |Software Engineering Intern
May 2017 - July 2017|Enterprise User Search for Scheduler
Developed a User recommendation engine in Spark using ensemble of Singular Value Decomposition and Co-Occurrence data.Implemented and tested other techniques like Hierarchical User Clustering and Collaborative Filtering. Devised strategy to test and save Model in Redis and fetch recommendations efficiently in FrontEnd.

LOUGHBOROUGH UNIVERSITY |Summer Research Intern
May 2016 - July 2016| Under Prof. Massimiliano Zecca
Developed Code in Matlab to simulate Human movement in 3D using quaternion data of IMUs to extracting meanings from body movements using functional grammar developed from linguistics; Wrote code to ease checking correct calibration of IMU.

PROJECTS

POVERTY MAPPING FROM SATELLITE DATA |Earth Engine, CNNs
July'17- Present | Prof. Aaditeshwar Seth
Analyzed Satellite datasets like Landsat to predict Census labels like Household Condition, Lighting status, Water status at village level using various ML algorithms available on Google Earth Engine, using heuristics on Landsat band indexes of differences across seasons and using CNNs with some standard architectures.

TRAVELING SALESMAN PROBLEM | Genetic Algorithm,OpenMP
Spring 2017 | Prof. Subodh Sharma
C++ implementation of several genetic crossover algorithms like PMX, CX, ERX and Greedy crossover with some heuristics. Mutation to provide soft random restarts on stagnation. Parallelized using OpenMP to utilize inherent concurrency of algorithm.

SEARCH ON COMBINATORIAL AUCTION | Local Search
Autumn 2016 | Prof. Mausam
Worked on a local search approximation solution to the NP-Hard problem of Combinatorial Auction. Implemented greedy local search with random restarts running them on parallel threads to reach increasingly profitable solutions.

BASIC SEARCH ENGINE | Svd, Scipy
Fall 2016 | Prof. Rahul Garg
Implemented Latent Semantic Indexing in python using Singular Value Decomposition for matching similar documents, similar words and returning relevant documents for queries.

HACKATHONS & COMPETITIONS

2017	Facebook Hacker Cup	Reached Round 2 of the Competitive Coding Event
2016	Google Apac Test	Ranked 314 among Students in APAC Region
2016	Code Fun Do Microsoft	Developed Game in Unity5 and Visual Studio
2016	Capital One	Came 1st in the Optimization Strategy Contest

SCHOLASTIC ACHIEVEMENTS

2014	Bronze Medal	Asian Physics Olympiad at NUS,Singapore
2014	Rank 2 in India	SCRA examination,UPSC (Government of India)