Ayush Gupta

Junior 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: 8.2/10

COURSEWORK

UNDERGRADUATE
Machine Learning
Artificial Intelligence
Numerical Algorithms
Programming Languages
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

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

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.

POVERTY MAPPING FROM SATELLITE DATA |Earth Engine, CNNs
July'17- Present | Prof. Aaditeshwar Seth
Analyzing Satellite Images and Reflectance bands to map features like roof material, water resources, roads, vegetation,etc to estimate the development indices and finding a co-relation with the census data obtained from government surveys.

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.

GRIEVANCE RESOLUTION APP | ANDROID, CODEIGNITER
Spring 2016 | Prof. Vinay Ribiero
Designed Restful APIs using Codeigniter framework of PHP for registering and viewing complaints, upvotes, comments, search filters. Developed front-end android client for users and admin dashboard for monitoring Complaint Management System.

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
2015	Nutanix Hackathon	Developed application for lawyers-clients community
2015	Import Frosh	Came 2nd in Coding Competition of CS Freshmen

SCHOLASTIC ACHIEVEMENTS

2014	Bronze Medal	Asian Physics Olympiad at NUS,Singapore
2014	IITD Merit Award	For being in top 7% of University Students
2014	Rank 2 in India	SCRA examination,UPSC (Government of India)
2013	Rank 14 in India	KVPY Fellowship, IISc Bangalore