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: 8.22/10

COURSEWORK

UNDERGRADUATE
Operating System
Computer Networks
Parallel and Distributed Systems
Machine Learning
Programming Languages
Software Design Practices
Artificial Intelligence
Numerical Algorithms
Theory of Computation
Computer Architecture
Database Management Systems
Analysis and Design of Algorithms
Discrete Mathematical Structures

SKILLS

PROGRAMMING
Over 5000 lines:
Python • C++ • Java • MATLAB
Familiar :
Javascript • SML • R • ARM
Technologies:
Android • Codeigniter • Linux and Bash
Scripting

LINKS

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Github:// **ayushgupt**
LinkedIn:// **ayushgupta12**
YouTube:// **ayushgupta**
Twitter:// **@ayushabg**
Quora:// **Ayush-Gupta**

LINKS

POSITIONS

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

EXPERIENCE

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 extract meaning from body patterns; Also made code to visually and graphically check the correct caliberation of IMU.

PROJECTS

OPERATING SYSTEM | Concurrency,Virtual Memory, Sys Calls
Autumn 2017 | Prof. Sorav Bansal
Developing a kernel from scratch in the OS Course. Designed Shell and currently working on implementing Threads and Concurrency.

TCP IMPLEMENTATION | Sliding window, packet retransmissions
Fall 2016 | Prof. Vinay Ribeiro
Implemented TCP features such as handshaking, sliding window, congestion control, and retransmissions on top of these two programs which use UDP. Used Java Sockets.

PARALLEL PREFIX SUM | Pthreads, Multithreading
Autumn 2017 | Prof. Subodh Sharma
Used Pthreads in C++ to implement prefix Sum using upsweep and downsweep algorithm and balance load efficiently across each thread. Wrote a general program taking number of threads as argument.

COMPILER FOR IMPERATIVE LANGUAGE | Lamda Calculus, SML
Autumn 2016 | Prof. S Arun Kumar
The compiler had a lexer, parser, AST generator, code generator. Basic library functions were also implemented which could be used by the program and would be used for code generation by the compiler.

MULTIPLAYER PING PONG GAME | SOCKETS, SWING, PEERS
Spring 2016 | Prof. Vinay Ribeiro
Implemented a robust Peer to Peer network in Java with protocols to avoid game failure on player disconnection, by seamlessly switching to AI bots when a player left the room. Added intelligent ball tracing bot players.

SCHOLASTIC ACHIEVEMENTS

Year	Award	Description
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	Top-35 in India	Indian National Chemistry Olympiad(INChO)
2013	Rank 14 in India	KVPY Fellowship, IISc Bangalore

HACKATHONS & COMPETITIONS

Year	Event	Description
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	Aerobot	Came 1st for designing recursions for Robozzle Puzzle
2015	Nutanix Hackathon	Developed application for lawyers-clients community
2015	Import Frosh	Came 2nd in Coding Competition of CS Freshmen
2015	ACM-ICPC	Received Honorable Mention at Chennai Site