Aayush Aggarwal

Resumé

CONTACT

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EDUCATION

UNIVERSITY Indraprastha Institute of Information Technology (IIIT), Delhi
B.Tech, Computer Science, class of '20
CGPA: 8.59 (upto 7th semester)

HIGH SCHOOL Delhi Public School Dwarka, New Delhi, class of 2016

SKILLS

LANGUAGES
C++ • C • Python • Java • C#
Assembly • Matlab • Bash • SQL
HTML • CSS • PHP • JavaScript

TOOLS & FRAMEWORKS
Git • Latex • MongoDB • Selenium
Vim • Sublime Text • Android Studio
BootStrap • JQuery • Arduino

MISC. SOFTWARE
After Effects • Premiere Pro • Vegas
FL Studio • Illustrator • PhotoShop
Blender • Maya • Cinema 4D • 3Ds

CLUBS & ACTIVITIES

Elite Member
FooBar Coding Club, IIIT Delhi

Member
Evaristé Mathematics Club, IIIT Delhi

Member
INK. Graphic Design Club, IIIT Delhi

Event Organizer
Esya 2018 Technical Fest, IIIT Delhi

Creative Team & Event Organizer
Odyssey 2017 Cultural Fest, IIIT Delhi

President
I.T. Council, DPS Dwarka

Multimedia Head
C.O.R.E. Computer Club, DPS Dwarka

LINKS

aayush9.github.io
LinkedIn: /aayush9
Github: /aayush9
Codeforces: /aayush9
Codechef: /aayush9

EXPERIENCE

SUMMER INTERN @ MICROSOFT IDC
Manager: Mr. Arijit Sengupta (May'19 - July'19)
- Worked with the Azure Compute team
- Experimented with new approaches to improve the existing container scheduling system for reliability & efficiency
- Received a pre-placement offer to join them full-time in 2020
- **Tools:** C#, Go, Python, Powershell, Kusto, Docker, Kubernetes

UNDERGRADUATE RESEARCH
Supervisor: Dr. Tanmoy Chakraborty (June'18 - Dec'18)
- Studied opinion spam on e-commerce marketplaces (amazon.in)
- Crawled review data and used data mining techniques to identify groups
- Hand-crafted characterizing features, and trained machine learning models to classify them and study identifying traits
- **Tools:** Python, Selenium, MongoDB, Scikit-Learn, Github

TEACHING ASSISTANT
Helped teach 2 courses at IIIT-Delhi as a teaching assistant:
- Algorithm Design & Analysis (Winter '19)
- Competitive Programming (Summer '18)

WORKSHOP TRAINER
Organisation: Codechef (May'18 - June'18)
- Taught 6th - 12th graders fundamentals of programming and logic, data structures and algorithms
- Curated lesson plans and designed logical & programming assessments
- Conducted lectures, assessments, and hands-on activities, after undergoing through rigorous pedagogy sessions from Teach for India fellows

PROJECTS
Multi-user chat server: A communication application that allows encrypted file transmission and message communication between users over TCP incorporating public-private key exchange, along with Diffie-hellman shared key establishment.

Super Tic-Tac-Toe AI: Made bots to play the game of super tic-tac-toe, using min-max search with alpha-beta pruning and used it to train another bot following the reinforcement learning paradigm using the Q-Learning technique.

Chain Reaction Game: A game made in the form of a java applet, similar to the original chain reaction game, but with additional features like network play.

ARM Assembly Simulator: A C++ program that interprets and runs programs in the form of ARM assembly instructions, with the five stages of the ARM pipeline.

Cardiosol: An application that detects the condition of Tachycardia using webcam, Cardiosol allows easy medical checkups at home. It measures heartbeat using webcam and connects the user with doctors, in case possible occurrences of disease.

AWARDS & ACCOLADES

2019	1st, ICPC Kanpur Regional - Qualified for 2020 World Finals
2019	All-India 1st, Google Kick Start Round D (Global 10th)
2019	All-India 2nd, ICPC India Online Round
2018	Second, ESYA'18 Techathlon, (a tournament of 6 events) as a lone wolf (against teams of 2), IIIT Delhi
2018	Master on CodeForces (Rating 2276): Top 15 in India
2017	All-India 2nd, Codechef July 10-Day Long Challenge (24th global)