

# Aayush Aggarwal

## Resumé

### CONTACT

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### EDUCATION

**UNIVERSITY** Indraprastha Institute of Information Technology Delhi (IIITD)  
B.Tech, Computer Science, class of '20  
CGPA: 8.59 (upto 6<sup>th</sup> semester)

**Technical Electives:** Operating Systems, Computer Networks, Network Systems & Security, Artificial Intelligence, Theory of Computation, Randomized Algorithms

**HIGH SCHOOL** Delhi Public School Dwarka, New Delhi (Since April 2002)  
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. SOFTWARES

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

### LINKS

[aayush9.github.io](https://aayush9.github.io)

LinkedIn: /aayush9

Github: /aayush9

Codeforces: /aayush9

Codechef: /aayush9

### INTERESTS

Algos & Data Structures  
Artificial Intelligence  
Computer Networks  
Systems & Security

### HOBBIES

Competitive Programming  
Graphic Designing  
Chess (Non-Competitive)  
Rubik's Cube

### EXPERIENCE

#### SUMMER INTERN @ MICROSOFT

**Manager:** Mr. Arijit Sengupta

Interning with Microsoft India for a 2 month period, from May 2019 to July 2019. Working with the Azure Compute team to improve the existing scheduler to efficiently deploy apps & services across data-centers around the globe. Received a pre-placement offer from the company to join them full-time in 2020.

#### UNDERGRADUATE RESEARCH

**Supervisor:** Dr. Tanmoy Chakraborty

As an independent project in college, worked on studying opinion spam on e-commerce marketplaces, specifically amazon.in, after their introduction of new policies to prevent collusion. It involved identifying groups based on renowned data mining techniques, and classifying them based on certain behavioural traits that can determine extremist review behaviour based on individual & collective information from these groups.

#### TEACHING ASSISTANT

Taught 2 courses at IIIT-Delhi as a teaching assistant.

Algorithm Design & Analysis

(Winter '19)

Competitive Programming

(Summer '18)

#### VOLUNTEER WORK

**Organisation:** Codechef

Worked with Codechef for the month of May 2018 to help teach a workshop to school children (grades 6<sup>th</sup> - 12<sup>th</sup>) the fundamentals of programming and logic, data-structures and algorithms. It involved curating lesson plans and assessments, and delivering them effectively after undergoing a rigorous pedagogy session from Teach for India fellows.

#### PROJECTS

**Muti-user chat server:** A communication application which 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 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 form of ARM assembly instructions, with the 5 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.

### STUDENT CLUBS & ACTIVITIES

**Elite Member** FooBar Coding Club, IIIT Delhi

**Member** Evaristé Mathematics Club, IIIT Delhi

**Member** INK. Graphics Design Club, IIIT Delhi

**Creative Team & Event Organizer** Odyssey 2017, IIIT Delhi

**President** I.T. Council, DPS Dwarka

### AWARDS & ACCOLADES

2018 All-India 7th, ACM-ICPC Kharagpur regionals

2018 All-India 31st, ACM-ICPC India Online Qualifier round

2018 Second, ESYA'18 Techathlon, (a tournament of 6 events) as a lone wolf (against teams of 2), IIITD Delhi

2018 First, NITD Programming League, NIT Delhi

2017 Reached Master on CodeForces (Rating 2126)

2017 All-India 2nd, Codechef July Long Challenge (24th global)