**Ayushman Choudhary**
**Indian Institute of Technology, Bombay**
ayushman.choudhary1102@gmail.com | +91 9654462777

Male
Chemical Engineering
LinkedIn | Website | Github

**Minor Degree** in **Computer Science and Engineering**

| Examination | Curriculum | Institute | Year | CPI/% |
|---|---|---|---|---|
| Graduation | B. Tech. | Indian Institute of Technology, Bombay | 2024 | 8.75 |
| Intermediate | CBSE | Navyug Sr. Sec. Convent School, Delhi | 2020 | 95% |
| Matriculation | CBSE | Daly College, Indore | 2018 | 97.4% |

## SCHOLASTIC ACHIEVEMENTS AND AWARDS

- Secured an **All India Rank 1974** in **IIT-JEE Advanced** Examination among **0.2 million** students across the country [2020]
- Achieved **99.82 percentile** in **JEE Mains**, securing All India Rank 2048 among **1 million+** candidates across India [2020]
- Recipient of the **Kishore Vaigyanik Protsahan Yojana** (KVPY) scholarship with an **AIR 511** among **50k+** applicants [2020]
- Awarded **School Topper** title for exceptional performance in **CBSE Class XII** Board Exams among **200+** students  [2020]
- Recognized for ranking in the **top 0.1%** out of **5 lakh+** candidates in the CBSE Class XII Mathematics Examination [2020]
- Received the **Dewas Sr. Prize** for **School Topper** in Class **X** among **150+** students securing **97.4%** in CBSE Boards [2018]
- Secured a **Zonal Rank 2** in Madhya Pradesh zone in the finals of the $9^{th}$ SOF - International Mathematics Olympiad [2016]

## PROFESSIONAL EXPERIENCE

### Deutsche Bank | Analyst                                        *[Jul '24 - Present]*
*Creating robust technical solutions for **Anti-Financial Crime***
- Upgraded four key components from **JDK8** to **JDK17** to ensure enhanced stability, improved performance and efficiency
- Collaborated with the Head of AFC list management and sanctions securities to analyze third-party watchlist data coverage
- Developed and implemented a comprehensive strategy to optimize **data subscriptions**, identifying potential **cost savings**
- Resolved security model issues, improved data consistency, and enhanced automation for **internal watchlist processing**
- Investigated and resolved defects, performed regression cleanup and improved Exception handling in the **ETL workflows**

### Amity Software Limited | Freelance                              *[Jun '24 - Jul '24]*
*Received a **Letter of Recommendation** for on-time delivery and efficient project execution*
- Developed key modules of the Crew Management System for **Delhi Metro Rail Corporation (DMRC)** for **iOS** and **Android**
- Built a comprehensive app for crew members to streamline equipment tracking, manage leaves, attendance and grievances
- Increased operational efficiency by automating manual processes, improving data accuracy and enhancing user experience

### Deutsche Bank | Analyst Intern                                 *[May '23 - July '23]*
*Received a **Pre-Placement Offer** for exceptional performance during the internship*
- Conducted comprehensive load testing on the **Cash Settlement Engine**, assessing latency between various **microservices**
- Simulated trade requests at increasingly high rates using **Gatling** to assess end-to-end system responsiveness, evaluating the process from subscribing to topics to publishing to subscribers using **Google Pub/Sub**, under diverse workload conditions
- Monitored resource consumption during load testing, including thread utilization, heap memory allocation and CPU usage
- Explored essential concepts of **Google Cloud Computing**, **Behaviour Driven Development**, **Kubernetes** and **JUnit** testing

### Fogteams | ML Developer Intern                                 *[May '23 - July '23]*
*Received a **Letter of Recommendation** for demonstrating proactice initiative and a strong work ethic*      *Founder: Kanik Arora*
- Led the team in building a **Slack app** assistant, on top of the **Rasa framework**, to provide on-demand notes and tasks retrieval, updating/uploading tasks, creating reminders, setting-up meetings etc. on the FogTeams conferencing platform
- Collaborated with a team of **15+ developers** to test and validate the product across environments for robust deployment
- Trained an **NLU model** with data from real-time conversations and enhanced user experience by using stories and rules
- Implemented **server-side pagination** to optimize performance for large data sets and ensure a seamless user experience

### Electroshoe | Web and Blockchain Developer Intern             *[Dec '21 - Feb '22]*
*Received Letter of Recommendation for showcasing strong problem-solving skills*      *Founder: Siddharth Mandala*
- Developed an MVP **web3 marketplace** enabling users to view, mint and share NFT collections, optimized through **lazy-minting** for efficiency and integrated with storage and payment solutions via an internal crypto wallet or the Metamask
- Scrutinized many on-chain/off-chain storage like **Arweave**, **IPFS**, **Pinata** to establish an immutable and secure NFT storage

## KEY PROJECTS

**CounterParty Data Management System**                                       *[Aug '24]*
Efficiently injests, manages and retrieves financial entity data while ensuring data integrity and user security
- Architected a scalable data injestion pipeline using **Spring Batch**, achieving high throughput of **3k to 5k records per second**
- Designed **RESTful APIs** with OpenAPI documentation, enabling dynamic data retrieval with filtering and sorting capabilities
- Integrated role-based access control using **Keycloak** and **Spring Security**, ensuring secure user management across profiles

**Athena (Udemy for IITB)**                                       *[Jul '21 - Nov '21]*
An **online learning and teaching** portal for the **10,000+** students of IITB having courses & workshops from cultural clubs
- Spearheaded as lead web developer for full stack development of an **Express app** with **MongoDB** maintaining collections
- Provided a user-profile authentication system using **JSON Web Token** along with **password hashing** for a secure process

**Spanning Tree Protocol**                                       *[Sept '21]*
A self-configuring protocol that prevents loops in a network by ensuring a single active path
- Implemented STP on a given **LAN and bridge topology** to report the port status of all bridges after establishing the network
- Engineered a **distributed logic algorithm** in **C++** by buffering the sender and receiver trace at each bridge and LAN node

**WnCC Game Development Hackathon**                                       *[Apr '21]*
Received a **Special Mention** for gameplay mechanics and design innovation
- Implemented character movement, NPC interactions, quest systems and state machines for smooth gameplay transitions
- Designed tile-based levels with Unity's Tilemap system, optimized physics interactions using **Rigidbody2D** to enhance movements and collision detection and incorporated custom animations with the Animator Controller to manage states

**Covid Scraper**                                       *[Jun '21 - Jul '21]*
**Certified with Project and Distinction** for the *Web Scraping Django App*
- Presented real-time global and national COVID-19 statistics using web scraping functions of BeautifulSoup on Google News
- Incorporated **Google Maps JavaScript API** for rendering an interactive world map displaying the world Covid-19 figures

## POSITION OF RESPONSIBILITY

**The Humanoid Project** | *Overall Coordinator*                                       *[Mar '22 - Apr '24]*
An all-student technical group designing a social humanoid robot to be deployed in the IIT Bombay campus
- Headed the team in technical events, recruitments, managing assets and funding rounds, securing **1.5 lakhs** in investment
- Directed the AI subsystem as Project Lead and integrated diverse AI solutions like training **YOLOv5** over a **1000+ image dataset** for real-time object detection, engineering a Rasa-based chatbot with **Mozilla DeepSpeech** voice integration, etc.

**Speezy** | *Head of Technology*                                       *[Feb '23 - May '23]*
Speezy, Sponsorships Made Easy, helps connecting creators, college fests, and events with the right sponsors effortlessly
- Conceptualized key platform features, leading to national recognition on **CNBC TV18** as a 'novel start-up in the digital space'
- Built and deployed Speezy's website, achieving **75K+ users** in the first week, extracting high performance and scalability

## TECHNICAL SKILLS

| | |
|---|---|
| **Programming** | C++, Python, HTML, CSS, JavaScript, SQL, Solidity, MongoDB, MATLAB, LaTeX, DBeaver |
| **Frameworks Libraries** | Spring Boot, Quarkus, Django, React JS, React Native, Angular, Node JS, Pandas, Gatling |
| **Software** | Git & Github CI/CD, Amazon AWS, Google Cloud, Postman, Wireshark, Unity, Control-M |

## EXTRA-CURRICULAR ACTIVITIES

| | |
|---|---|
| **TECH** | • Completed the **Hactoberfest** challenge by **Digital Ocean** via open-source contributions *[2021]* <br> • Secured a global rank of **1884** in **Google Kick Start Round B** in competitive coding *[2021]* <br> • Certified with **HackerRank Problem Solving (Basic) and (Intermediate)** in C++ *[2021]* <br> • Certified 3 Star coder at CodeChef with a **1717 rating** and **4 star** in C++ at HackerRank *[2021]* |
| **DEBATING** | • **Vice-Chaired** the Futuristic Crisis Commitee in the **Mayo College Girls' School MUN** *[2024]* <br> • **Vice-Chaired** the UN Human Rights Council committee in the Daly College Model UN *[2017]* <br> • Adjudged **Best Delegate** in EHMUN, Daly College Youth Parliament & BATCHMUN *[2015, 2016]* |
| **SPORTS** | • Completed the 2nd Edition of **HRX Half Marthon '24** (21.097 kms) in 2 hrs and 25 mins *[2024]* <br> • Emerged as undefeated champion of the **Aavhan Revive Sports League Squash Comp.** *[2022]* <br> • Successfully summited the 3,810m Kedarkantha peak during a 6-day winter snow trek *[2021]* <br> • Awarded **renowned shot** (10m Air Rifle) in the 61st National Shooting Championship *[2017]* <br> • Received **1 gold, 2 silver** and **1 bronze** at the MP State Shooting Championship *[2016, 2017]* <br> • Received a **bronze (team) medal** at the 14th All India IPSC Shooting Championship *[2017]* <br> • Passed the **National Cadet Corps Certificate A** examination and CATC with a **SGT** rank *[2017]* |