



Aditya Chauhan

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DOB: 14 June, 2004

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[GitHub](#) | [LinkedIn](#) | [Codeforces](#) | [Website](#)



Education

Indraprastha Institute of Information Technology, Delhi
B.Tech (Electronics and VLSI Engineering)

CGPA: 7.29
2022 - present

- Secured a perfect **10 SGPA** in Summer Term II.
- Secured **10 CGPA** in Competitive Programming I and Electronics System Design.
- Studied useful **Technical Courses** including Data Structures and algorithms, Linear Algebra, Object Oriented Programming, Machine Learning, Front End and Back End Web Development, Modern Algorithm Design, Database Management Systems, Version Control Systems, FPGA, SoC System Design .

Delhi Public School, Nerul, Navi Mumbai
CBSE, Class 12th, PCM+CS

Percentage : 91%
2022

- Secured a decent **98.61 percentile** in JEE Mains 2022.

Skills

Expertise Area:	Data Structures and Algorithms, Machine Learning, Competitive Programming, Android App Development, Web Development, API Handling.
Languages:	C++ with STL, Java, Verilog, Python, JavaScript, Kotlin, C, HTML, CSS, SQL, Bash, Haskell.
Tools and Technologies:	Android Studio, Linux, React JS, Node Js, MATLAB, Verilog/VHDL, Eagle CAD, Keras, Pytorch, Tensorflow, MongoDB, Arduino, Google Collab, Kaggle, Pandas, Numpy, Matplotlib, MySQL, LaTeX, Adobe XD, LibGDX, Git/Github.

Work Experience

Software Development Intern, Applied Solar Technologies
Guide: Dr. Debarka Sengupta

Apr 2023 - July 2023

- Spearheaded the development of an Artificial Intelligence Chatbot using **RASA**.
- Involved in the **design and building process** of the chatbot, ensuring it effectively responded to user queries.
- The chatbot is currently utilized by around **200 site engineers** all around India.
- Reduced the query resolution time by approximately **85 percent** due to the automation of the query resolution process using the AI chatbot.

Projects

Decentralised File Storage System using GoLang [[Source Code](#)]

- Developed a **fully distributed content-addressable file storage system** using Go, designed to handle and stream very large files efficiently.

- Implemented a **decentralized architecture** utilizing a peer-to-peer network for distributed file storage, enhancing scalability and fault tolerance.
- Integrated **streaming capabilities** to support efficient handling of large files, along with **encryption** for secure storage and retrieval.
- Designed the system for **fault tolerance**, allowing it to handle node failures gracefully, and **scalability** by enabling easy addition of new nodes to the network.
- **Tech Stack:** Go, TCP/IP, Encryption algorithms, Distributed systems concepts.

Sonic Runner: Browser Standalone 2D Sprite Based using JS [\[Source Code\]](#)

- Developed an **endless runner game** using **JavaScript** and the **Kaplay JS game engine**, delivering a smooth, fast-paced arcade experience.
- Implemented **keyboard-based/touch-based controls** (arrow keys and spacebar) to perform actions like jumping, sliding, and dodging obstacles.
- Designed **retro-style graphics and gameplay** that mimics the classic Sonic games, with the objective of collecting rings and avoiding obstacles.
- Deployed the game on **Netlify**, making it accessible directly from a web browser without any installations.
- **Tech Stack:** JavaScript, Kaplay JS, HTML, CSS, Vite.

EPASS & JointMatch: Semi-Supervised Learning Research [\[Source Code\]](#)

- Designed and implemented **JointMatch**, a collaborative pseudo-labeling framework with adaptive class-wise thresholding and peer cross-supervision to reduce confirmation bias in low-label regimes.
- Developed **EPASS**, an ensemble projector module for contrastive SSL that aggregates multiple projection-head embeddings to mitigate representation bias and improve confidence calibration.
- Engineered data preprocessing and augmentation pipelines for **vision (Tiny ImageNet)**, **audio (Freesound)**, and **text (DBpedia)** modalities, boosting model generalization under extreme label scarcity.
- Conducted extensive cross-domain evaluations demonstrating up to **+5.7 %** accuracy gains and significant reductions in Expected Calibration Error and signal reconstruction error.
- Utilized **Python**, **PyTorch Lightning**, **Hugging Face Transformers**, **NumPy**, **OpenCV**, and **Matplotlib** for end-to-end model development, training, and visualization.

Meditation App using React Native[\[Source Code\]](#)

- Developed a **meditation app** using **React Native**, providing users with a clean, calming interface for guided meditation sessions.
- Integrated **FlatLists**, **Linear Gradients**, **modals**, **tab bars**, and **icons** to enhance the app's visual appeal and user navigation.
- Utilized **Expo Router** for efficient file-based routing, improving app structure and navigation across screens.
- Incorporated **NativeWind** for seamless styling with Tailwind CSS in React Native, ensuring responsive layouts.
- **Tech Stack:** React Native, Expo, JavaScript, TypeScript, NativeWind.

Awards and Achievements

- Specialist on Codeforces, [Rating: 1442](#).
- Secured a global rank of 32 out of 20,000 people in CodeChef Starters 140

Interests and Hobbies

- Competitive Programming
- Algorithmic Puzzle-Solving
- Weight-Lifting

Declaration: The above information is correct to the best of my knowledge.

Aditya Chauhan

Date: May 31, 2025