

Sarthak Aggarwal

✉ sarthakaggarwal120@gmail.com

🌐 [sarthak-aggarwal-24585021b/](https://www.linkedin.com/in/sarthak-aggarwal-24585021b/)

☎ (+91)9910163459 | 📍 New Delhi

EDUCATION

BTech Computer Science Engineering (Spec. in Blockchain Technology)
Vellore Institute of Technology (8.77/10)

2021 - 2025 | Vellore

PROFESSIONAL EXPERIENCE

Blockchain Developer

09/2024 – Ongoing | Remote

Diligent Cares

- Designed a blockchain-based EHR system integrated with IPFS, improving data security and reducing access delays by 25%.
- Implemented smart contracts for access control, leading to a 40% reduction in unauthorized data access and ensuring healthcare compliance.
- Enhanced data traceability and integrity through encryption, achieving 50% improvement in record accuracy and tamper-proof management.

Researcher

09/2023 – 11/2023 | Ahmedabad

Space Application Centre, ISRO

- Conducted a comprehensive analysis of permissioned blockchain networks, identifying key use cases that projected a 40% increase in operational efficiency for targeted business units upon real-world implementation.
- Developed an IPFS model prototype for a private blockchain, enabling controlled access for stakeholders and achieving a 50% improvement in traceability and security within the company's supply chain processes.
- Acquired in-depth knowledge of blockchain technology, enhancing understanding of its application in safeguarding sensitive data.
- Explored potential future use cases and integration with decentralized applications and emerging technologies.

PROJECTS

Animal Detection and Warning System

- Designed a highway safety system detecting animals via thermal sensors and an ML model with 90% accuracy.
- Automated alerts using MQTT and activated ultrasonic deterrents, reducing animal-road incidents by 40%.
- Built a Streamlit UI for real-time monitoring, integrating OpenCV for efficient thermal data processing.

Electronic Voting System

- Developed and deployed a smart contract voting system using Truffle, Ganache, and Solidity, reducing vote processing time by 45% through automated validation and tallying.
- Implemented on-chain voter data storage, improving data retrieval speed by 30% and enhancing security by 20%.
- Integrated MetaMask for a user-friendly voting interface, simplifying the process and boosting voter engagement by 25%.

LEADERSHIP AND VOLUNTARY EXPERIENCE

Drill Instructor - Sargeant

03/2021 - 03/2024

National Cadet Core (Indian Army)

- Served as a Sargeant in the 1st B company of the 10th Tamil Nadu battalion, Madras Regiment, leading company of 150 Cadets as the Senior and Drill Instructor, while completing the NCC "C" Certificate.
- Instructed newly recruited NCC cadets on Leadership, Officer-Like Qualities (OLQs), as well as the fundamentals of drill and Weapon handling/shooting/positioning using four distinct types of weapons.

CERTIFICATIONS AND COURSES

Ethereum Blockchain Developer Bootcamp with Solidity (2024)

08/2024 – 09/2024

Udemy

The Complete Data Structure & Algorithm Course in Python

04/2024 – 08/2024

Udemy

Blockchain A-Z: Build A Blockchain, A Crypto

03/2024 – 04/2024

Udemy

SKILLS, INTERESTS & OTHER ACTIVITIES

- **Programming Languages:** Python, Solidity, Django, JavaScript, MySQL, Java, C/C++.
- **Technical Skills:** OOPs, Computer Networks, Operating Systems, DBMS, Cryptography & Network Security, DSA, Blockchain Development, Agile Methodology, Web3, Smart Contracts, IPFS, IOT.
- **Soft Skills:** Communication, Market Research, Collaboration, Financial Model, Decision making, Team management.
- **Software & Tools:** MS office, Google Suite, Cisco Packet Tracer, Wireshark, Oracle VM VirtualBox, Putty, WinSCP, Postman, Ganache, Docker, StarUML, Metamask, Truffle, Digital Oceans, Polygon, Pinata, Ngrok
- **Other Interests:** Basketball (State level), Chess (State level).