Sarthak Aggarwal

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EDUCATION

BTech Computer Science Engineering (Spec. in Blockchain Technology) 2021 - 2025 | Vellore
Vellore Institute of Technology (8.83/10)

PROFESSIONAL EXPERIENCE

Blockchain Developer 09/2024 – 01/2025 | Remote
Flexflier.com
- Built a proof of concept (PoC) for a blockchain-based ticket booking system, enabling secure, transparent transactions and reducing ticket validation time.
- Optimized end-to-end corporate travel expenses, including airfare, accommodation, and transportation.
- Analyzed and recommended blockchain solutions for multi-currency transactions, streamlining cross-border expense management and ensuring global compliance.

Research Intern 09/2023 – 11/2023 | Ahmedabad
Space Application Centre, ISRO
- Performed 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.
- Designed a prototype for a private blockchain using Hyperledger fabric, enabling controlled access for stakeholders and achieving a 50% improvement in traceability and security within the organization's access control processes.
- Gained in-depth knowledge of blockchain technology, enhancing understanding of its application in safeguarding sensitive data.

PROJECTS

Animal Detection and Warning System | (GitHub)
- Developed a highway safety system using thermal sensors & ML, achieving 90% accuracy in animal detection.
- Automated MQTT-based alerts and ultrasonic deterrents, reducing road incidents by 40%.
- Designed an interactive Streamlit UI with OpenCV & YOLOv8 for real-time detection & visualization.

Media Authentication System | (GitHub)
- Built a decentralized platform using blockchain for tamper-proof media verification.
- Embedded visible & steganographic QR codes for traceability, reducing misinformation.
- Developed an interactive UI for seamless publishing and scalable adoption.

Corporate Governance Voting System | (GitHub)
- Developed a DAO-based blockchain voting system on Polygon using Solidity & Truffle, ensuring secure & transparent governance.
- Designed an intuitive UI/UX with CSS & Bootstrap, enabling seamless real-time voting and proposal tracking.
- Optimized proposal validation to reduce centralization, boosting employee participation and decision-making time by 40%.

Spotify Clone | (GitHub)
- Built a clone of a music streaming platform Spotify with real-time playback and playlist management.
- Integrated user authentication and search functionality.
- Leveraged Next.js & React.js for dynamic UI and Tailwind CSS for responsive design.

LEADERSHIP AND VOLUNTARY EXPERIENCE

Drill Instructor - Seargeant 03/2021 - 03/2024
National Cadet Corps (Army Wing)
- Served as a Seargeant in the 1st B company of the 10th Tamil Nadu battalion, 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

The Complete Data Structure & Algorithm Course in Python (Udemy)	**2025**
Ethereum Blockchain Developer Bootcamp with Solidity (2024) (Udemy)	**2024**
Blockchain A-Z: Build A Blockchain, A Crypto (Udemy)	**2024**

TECHNICAL SKILLS

- **Languages:** JavaScript, TypeScript, Python, Solidity.
- **Frontend Development:** React.js, Next.js, HTML5, CSS3, Tailwind CSS, Bootstrap.
- **Backend Development:** Node.js, Express.js, RESTful APIs.
- **Database Management:** MongoDB, SupaBase, MySQL, IPFS.
- **Blockchain Development:** Smart Contracts (Solidity), Web3.js, Ethereum, Truffle, Ganache, MetaMask, Polygon.
- **Soft Skills:** Communication, Collaboration, Problem Solving, Teamwork, Time Management.
- **Other Interests:** Basketball (State level), Chess (State level)