Aradhye Swarup

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PROFESSIONAL SUMMARY

Full-stack developer and AI engineer skilled in delivering production-ready applications and ensuring software quality. Led development of advanced voice cloning systems, blockchain IDEs, and automated content pipelines. Founded nahneed., a creative tech startup with 50+ active users and recognition at university startup finals, demonstrating leadership and QA process expertise.

SKILLS & TECHNOLOGIES

Languages : C, C++, Python, Java, HTML, CSS, JavaScript, TypeScript, SQL, noSQL
Technologies & Tools : React.js, Next.js, TailwindCSS, Node.js, Django, FastAPI, Express.js, MongoDB
DevOps and Toolkits : Git, AWS, Docker, Kubernetes, Azure Cloud
Machine Learning Libraries : Numpy, Pandas, Seaborn, Scikit-learn, R, MATLAB
QA Tools : Selenium, PyTest, JUnit, Postman

EXPERIENCE

Software Developer Intern | *algoleap* | <u>*Website*</u>   *May 2025 - July 2025*
– Built AI pipeline using Deepgram and Together.AI, reducing manual video review time by 70% for 200+ internal videos.
– Developed modular workflows with prompt-tuned summarization and CSV export, processing 15+ hours weekly with 95% accuracy.
– Documented testing progress and reported defects to application developers for timely resolution.
– Collaborated with QA team members to design and execute test cases, ensuring delivery of high-quality features.

Founder | *nahneed.* | <u>*Website*</u>   *January 2025 - May 2025*
– Founded creative technology platform combining full-stack development with AI-powered storytelling experiences.
– Scaled blurt. from 0 to 50+ users in 1 month, launched version 2.0 and learned software maintenance practices.
– Led product, design, and marketing; grew social media to 100+ followers with 15% weekly engagement.
– Advanced to final round at Pioniera startup convention, competing against teams from top universities.

PROJECTS

Echoid | *Next.js, FastAPI, XTTS-v2, Torch, Bun, Uvicorn, Soundfile, NumPy* | <u>*Website*</u> | <u>*Github*</u>   *June 2025*
– Developed voice synthesis platform with 8 emotion tones, processing audio in under 3 seconds at 92% accuracy.
– Deployed complete on-premise TTS stack supporting real-time voice cloning, eliminating $200+ monthly API costs.
– Implemented unit and integration tests to validate functionality and maintain code quality.
– Hosted frontend on S3 and backend on EC2 using CloudFormation for infrastructure as code, ensuring scalable and reproducible deployments.

Fortify | *MERN, Solidity, Hardhat, Python, Streamlit, FastAPI, Passport.js, WebAssembly* | <u>*Website*</u> | <u>*Github*</u>   *April 2025*
– Designed full-stack Solidity IDE integrating ML-powered vulnerability detection with real-time contract compilation, reducing development cycle time by 60%.
– Developed custom compiler pipeline achieving sub-500ms contract compilation and deployment across Ethereum testnets.
– Integrated OAuth authentication and multi-language support, supporting contract deployment across 6 programming environments with seamless blockchain deployment.

EvoPacts | *MERN, Solidity, Truffle, Web3.js, Flask, PyTorch, Scikit-learn, Plotly* | <u>*Github*</u>   *September 2023*
– Architected blockchain-based contract management platform using smart contracts and predictive ML models to revolutionize athlete-club agreement handling.
– Implemented automated execution with real-time performance analytics, ensuring 100% transparent and tamper-proof agreement processing.
– Engineered comprehensive platform combining blockchain technology, machine learning analytics, and secure payment systems for sports industry applications.

EDUCATION

BTech in Computer Science and Engineering (CSE) | *Vellore Institute of Technology, Vellore*   *September 2022 - May 2026*
– CGPA: 8.62. Relevant coursework: Data Structures & Algorithms, Design & Analysis of Algorithms, Theory of Computation, Discrete Mathematics, and Database Management Systems.

ACHIEVEMENTS & CERTIFICATIONS

MLOps for Generative AI | *Google* | <u>*Certificate*</u>   *May 2025*
LeetCode | *Solved 100+ problems across core DSA topics.*   *April 2025*
Pioneira Finalist | *E-Cell's startup convention with nahneed. among 70+ teams.*   *March 2025*
OCI 2024 Generative AI Professional | *Oracle* | <u>*Certificate*</u>   *July 2024*
HackBattle Finalist | *IEEE's 36-hour hackathon with 100 teams.*   *September 2023*
The Complete 2023 WebDev Bootcamp | *Udemy* | <u>*Certificate*</u>   *June 2023*

EXTRA-CURRICULAR

Motion Graphics Head | *Indian Society for Technical Education*   *April 2024 - May 2025*
– Led a 10+ member team, ensuring content quality and smooth project execution.
– Delivered a technical workshop on WebRTC and building a video chat application using WebSockets.
– Hosted 8 technical and design sessions, enhancing peer learning and community participation.