

HEMALATHA A A

Roll No.: 412522205051

Bachelor of Technology

Sri Sairam Engineering College , Chennai

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EDUCATION

- Bachelor of Technology in Information Technology

Sri Sairam Engineering College, Chennai

Pursuing (2026 Batch)

CGPA: 8.62/10

- Higher Secondary Education 2020 -

Sri Ayyan Vidyashram Higher Secondary School, Chennai

2022

Percentage: 91%

- Intermediate Education 2019-

Sri Ayyan Vidyashram Higher Secondary School, Chennai

2020

Percentage: 97%

WORK EXPERIENCE

- International Intelligent Educational Consultancy (IIEC), Chennai

Intern – Web Development

- Designed and deployed 2 responsive web pages using HTML, CSS, and JavaScript, supporting cross-device compatibility for desktop and mobile users.
- Improved website load performance by 28% through optimized DOM structure and browser caching techniques.

- National Institute of Technical Teachers' Training and Research (NITTTR), Chennai

ChatBot Developer (Intern)

- Developed an AI-powered chatbot using NLP-based intent recognition, handling 1,000+ user queries with real-time response generation.
- Reduced chatbot response latency by 35% and improved intent classification accuracy by 20% through model tuning and query optimization.

Jypadayan SW Services

Intern – Database & Content Management

- Established Designed a CRUD-based web application integrated with Firebase Authentication for secure user access.
- Streamlined content update workflows, reducing manual data inconsistencies by 30% and improving role-based accesses.

PROJECTS

RESPIROPURE - Revolutionizing Air Quality with Automated Purification

Completed

IoT-based smart air purification system for real-time air quality monitoring

- Developed an IoT-based air purification system using microcontrollers and sensors, reducing PM2.5 levels by 60% and enabling real-time air quality monitoring for 200+ active users.
- Enabled data-driven environmental decision-making and improved community resilience.

MINDMATE

Completed

Student Wellness Chatbot

- Developed a sentiment-aware chatbot using Python, NVIDIA LLM API, and Streamlit.
- Increased student engagement by 40%, enabling continuous emotional well-being assessment and wellness tracking.

ACHIEVEMENTS

- Honouree of the Richard E. Merwin Student Scholarship offered by IEEE Computer Society (\$1000 USD) [Link](#)
- Awarded the Global Eminent Student Award (2024) in recognition of academic excellence and technical contributions.
- Selected as a Finalist in IIT Madras PALS InnoWaH 2025, ranking among the top shortlisted teams for innovative solutions.
- IEEE Xtreme 17.0: Global Rank 922, College Rank 27

PUBLICATION

- V. Kalaiselvi, T. Subha, R. Ranjana, **H. A A**, S. R and J. G, "RespiroPure: Advancing Air Quality Management Through Intelligent and Automated Purification Systems," 2025 International Conference on Computing and Communication Technologies (ICCTT), Chennai, India, 2025, pp. 1-6, [Link](#)
- K. V.K.G, J. Gopalakrishnan, S. S. Anand, S. Hariharan, S. Saravanan and **H. Annamalai**, "Sustainable Algorithms using Artificial Intelligence and Various Stages for Precision Agricultural Cultivation," 2023 Second International Conference on Augmented Intelligence and Sustainable Systems (ICAISS), Trichy, India, 2023, pp. 239-244, [Link](#)
- H. Annamalai**, J. G, S. H, V. Kukreja, V. Raveendran and S. V. Vasantha, "Bridging the gap for sustainable crop cultivation using data science applications," 2023 IEEE North Karnataka Subsection Flagship International Conference (NKCon), Belagavi, India, 2023, pp. 1-6, [Link](#)

SKILLS

- Programming Languages:** C, C++, Python
- Web Technologies:** HTML, CSS, JavaScript
- Frameworks & Libraries:** React.js (Intermediate), Tailwind CSS (Intermediate), Express.js (Basic)
- Developer Tools:** Git, GitHub, VS Code
- Languages:** English, Tamil (Native)