

# Adwaith S

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## Profile

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Aspiring Software Engineer skilled in Python, Java, C++, and UI/UX design. Experienced in developing secure, scalable applications, designing intuitive user interfaces, and optimizing performance. Strong problem-solving, collaboration, and communication skills, with a solid foundation in data structures, algorithms, and efficient coding practices. Committed to continuous learning and delivering high-quality, user-focused solutions.

## Education

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<b>Bachelor of Technology in Computer Science and Engineering, Grade : 7.73</b> <i>Amrita Vishwa Vidhyapeetham</i>	2022 – present Kollam, India
<b>Higher Secondary in Science, Percentage : 96.33</b> <i>Govt. Sanskrit HSS</i>	2019 – 2021 Vadakara, India
<b>Secondary School, Percentage : 99.21</b> <i>Memunda HSS</i>	2018 – 2019 Vadakara, India

## Projects

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<b>Connected Plant Care System</b> <i>Figma, User Research, Wireframing, Prototyping</i>	2025
• Conducted user research and created personas to understand plant-care needs. • Designed wireframes, high-fidelity UI, and an interactive Figma prototype. • Integrated features like moisture monitoring, smart alerts, and care suggestions. • Delivered a clean, intuitive, and user-centric interface for plant management.	
<b>Deforestation Detection and Prevention using Cloud AI and Remote Sensing</b> <i>Google Earth Engine, Sentinel-2 Imagery, NDVI Analysis, Python, Streamlit, Google Cloud</i>	2025
• Built a cloud-based monitoring application to detect forest loss using remote sensing data. • Developed an interactive Streamlit dashboard for real-time alerts, multi-year vegetation trend comparisons, and intuitive visualization. • Ensured scalability and high accuracy for large geospatial datasets.	
<b>Hybrid Graph-Based Recommendation System</b> <i>Python, NetworkX, scikit-learn, TF-IDF, cosine similarity, Streamlit</i>	2025
• Developed a hybrid recommendation engine integrating structural (Common Neighbors, PageRank), semantic (TF-IDF, cosine similarity), and community features for precise social/web suggestions. • Designed a Streamlit dashboard to visualize results, achieving high Precision@k, Recall@k, and NDCG@k scores.	
<b>AI-Powered Ransomware Detection System</b> <i>Python, scikit-learn, Isolation Forest, Random Forest, Pandas, NumPy, Matplotlib</i>	2025
• Created a machine learning pipeline to detect ransomware via behavioral pattern analysis. • Preprocessed data, performed feature extraction, and trained models for accurate classification and timely alerts.	
<b>Medical Health ID Card System</b> <i>Node.js, MongoDB, JWT, REST APIs</i>	2025
• Engineered a secure and scalable healthcare portal for digital health records management.	

- Implemented JWT-based authentication and ensured adherence to coding best practices.

## ACHIEVEMENTS

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### IEEE Paper Publication 2025 :

2025

- Presented a paper titled “Deforestation Detection and Prevention using Cloud AI and Remote Sensing” accepted at the IEEE Amrita Conference on Computing, Communication and Intelligent Systems (CIS 2025).
- Developed a cloud-based monitoring system using Google Earth Engine, Sentinel-2 imagery, and NDVI analysis, with an interactive Streamlit dashboard for real-time deforestation tracking.

## COMMUNITY OUTREACH PROGRAM

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### HTML Workshop (2024)

*Conducted a web development awareness initiative for high school students at VGSSA HSS, Kollam.*

- Educated students on the fundamentals of HTML and website creation through an interactive workshop.
- Engaged students with hands-on coding, live demos, and Q&A sessions.

## Skills

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Programming: Java, Python, C++

Databases: MongoDB, MySQL

Cloud & Tools: Google Cloud, GitHub, Streamlit,  
Docker

Data Engineering & Analytics

## Languages

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- Malayalam (Native)
- English(Proficient)
- Hindi(Conversational)