SOWMYA K

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https://github.com/ampalsowmya

Education

AMRITA VISHWA VIDYAPEETHAM, Thiruvallur **2022 - 2026**
B.Tech in Computer Science & Engineering with Cyber Security Specialization *7.39/10 CGPA*

Premier Vidhya Vikash, Coimbatore **2021**
Class 12 (Higher Secondary) *86.1%*

BHARATIYA VIDYA BHAVAN, Coimbatore **2019**
Class 10 (Secondary School) *83.8%*

Projects

Transport Management System (C)
- Developed in my 1st year, this system efficiently manages and tracks transport services, including **booking, scheduling, and vehicle management**.

Student Attendance Management System (Python, MySQL)
- Developed as a **Capstone Project** in my 2nd year, automating student attendance tracking.
- Implemented functionalities for **logging attendance, generating reports, and maintaining a database**.

Password Encryption and Decryption (Java)
- Designed a secure password encryption and decryption system in my 2nd year using **Java**.
- Implemented encryption algorithms for **data protection** and developed a user-friendly interface for decryption functionalities.

Fitness Tracker (HTML, CSS, JavaScript)
- Built an interactive web application in my 2nd year to **track workouts, monitor progress, and manage fitness goals**.
- Enhanced front-end development skills with **responsive design** and **interactive UI**.

Gemini Clone (Node.js)
- Developed a **Gemini cryptocurrency exchange clone** in my 3rd year using **Node.js**.
- Focused on **secure transactions, user authentication**, and gained experience in **server-side development** and API integration.

Darknet Detection System (Machine Learning)
- Developed in my 2nd year, this system **detects darknet activity** using **machine learning** techniques.
- Implemented pattern recognition and **threat detection algorithms** to differentiate between darknet and benign activity.

Technical Skills

Languages: Python, Java, C++, JavaScript
Backend: MySql, Node.js,
Frontend: React, HTML, CSS
Clouds & Databases:Redis,Firebase, MongoDB

Achievements

- Finalist at **Google Gen AI Exchange Hackathon**, developing an AI-driven Adaptive Defense System for APT detection and mitigation.
- Implemented **Generative AI-powered cybersecurity** solutions using **Gemini's API** for dynamic threat response.
- Integrated **machine learning models** for real-time network traffic analysis and automated threat mitigation.
- Collaborated in a high-energy hackathon, enhancing **problem-solving, teamwork, and AI-security integration** skills.
- Selected among top teams in a competitive hackathon hosted by **Google and Devfolio**, engaging with industry experts.

Certifications

Java Fundamentals and Java Programming   **Feb 2024 - Aug 2024**
Corporate and Industry Relations (CIR), Amrita Vishwa Vidyapeetham, Coimbatore

Java from Zero to First Job, Practical Guide   **2024**
Instructor: Andrii Piatakha, Learn IT University (Udemy)

- Solved **100+ examples** covering core Java concepts, programming techniques, and practical applications.
- Designed to prepare for **real-world job roles** with hands-on coding and problem-solving.

Work Experience

Web Developer Intern   **Corizo**
May 2024 - July 2024

Worked on both **front-end and back-end development**, enhancing user experience and performance.

Developed responsive web applications using **HTML, CSS, JavaScript, and React.js**.

Integrated **APIs and databases** to improve website functionality and efficiency.

Collaborated with a team to design and implement **real-world web solutions**.

Served as a **Backend Developer** for a chatbot project, implementing **server-side logic, API integration, and database management**.

Gained hands-on experience in **full-stack development** and version control using Git.