Aswini Venkatesan

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About

Computer Science Engineering student with interests in web development, AI/ML and cloud computing. Actively exploring these domains through projects. Looking for opportunities to grow and gain real-world experience.

Education

Vellore Institute of Technology, Chennai   *Aug 2023 – Aug 2027*
B.Tech in Computer Science and Engineering

- CGPA: 8.88/10

Prince Srivari Senior Secondary School, Chennai   *May 2023*
AISSCE Grade 12

- Percentage: 94.8

Prince Srivari Senior Secondary School, Chennai   *May 2021*
AISSE Grade 10

- Percentage: 96.2
- Achievements: Scored 100/100 in Mathematics

Experience

Intern   *July 2025 – Present*
EduNet-IBM SkillsBuild

- Selected via the AICTE internship portal, a Government of India initiative. Currently undergoing industry curated training on AI, Cybersecurity and Cloud Computing through IBM SkillsBuild, with hands-on assignments and assessments aligned to real-world applications.

Tech Contributor   *July 2025 – Present*
GirlScript Summer of Code

- Contributed to multiple open-source repositories by fixing bugs, enhancing features and improving documentation. Collaborated with project maintainers and peers using Git and GitHub workflows.

Creative Department Member   *Chennai, India*
Culture It - VIT Chennai   *March 2024 – Present*

- Designed promotional posters using Canva, coordinated college club events and managed responsibilities under tight deadlines, demonstrating strong teamwork, communication and time management skills. Received a score of 92/100 for overall performance in sophomore year.

Projects

Coral Reef Health Classifier using CNN

- Built a deep learning model using CNNs in TensorFlow to classify coral reef images as healthy or bleached. Applied image pre-processing, normalization, and augmentation for better generalization. Evaluated performance using ROC curves and confusion matrices along with Grad-CAM and t-SNE for interpretability.
- Tech Stack: Python, TensorFlow, Matplotlib, Scikit-learn, Seaborn, Kaggle

AI-Powered Contract Insight Tool

- Built an AI-driven tool to summarize legal contracts, identify missing or critical clauses, assess risk levels and answer user queries related to the contract. Enabled file input, clause highlights through an interactive frontend and FastAPI backend.

Tech Stack: Python, FastAPI, Cohere API, HTML/CSS/JS, VSCode, GitHub

ExpenseTracker Pro - Expense Tracking Website

- The platform allows users to add, categorize, and view their expenditures with dynamic pie charts, graphs

and monthly summaries. Implemented secure user authentication with bcrypt and used MySQL for persistent data storage.

- Tech Stack: HTML, CSS, Node.js, Express.js, MySQL, VSCode

Thread Synchronization and Semaphore Controlled Traffic Simulation

- Developed a multithreaded traffic simulation in Python using Pygame, demonstrating OS concepts like synchronization, mutual exclusion, and semaphore-based signal control with emergency vehicle prioritization.
- Tech Stack: Python, Multithreading, Semaphores, OOP, Simulation Design, Event-Driven Programming

Skills

Languages: Java, C, C++, Python, MySQL, JavaScript, HTML CSS, R, Bash

Technologies: VSCode, GitHub, LINUX, RStudio, MATLAB, LTSpice, Tableau, Microsoft Azure, Canva