

Amogh E M

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Education

PES University

BTech in Computer Science (AIML)

Bengaluru, India | Sept 2027

GPA: 8.19/10.0

Coursework: Software Engineering, Object-Oriented Programming, Data Structures & Algorithms, Networks, Discrete Math, Linear Algebra, Probability & Statistics, Calculus

Skills

Languages: C/C++, Python, Java, JavaScript/TypeScript, HTML/CSS, SQL/noSQL, Solidity

Tools: Git/GitHub, Unix/Linux, Flask, React, Next.js, Nest.js, django, FastAPI, Docker

Experience

ISFCR PESU Club | Technical and CTF team member

Bengaluru, India | Sept 2023 – Present

- Participating in several international and national-level CTFs as a part of PESU ISFCR.
- Pentesting using many tools in linux.

IEEE RAS | Web Developer

Bengaluru, India | March 2025 – Present

- Develop and manage websites for the club for various events.
- Develop and contribute to projects done in the virtual lab.

Projects

Eventor | TypeScript, HTML/CSS, Express (Node.js), websockets

Feb 2025

- Built a **real-time event management platform** with **React (TypeScript)** and **Node.js** for seamless event creation and registration.
- Integrated **Socket.io** for live attendee updates, instant notifications, and real-time event changes.
- Developed **JWT-based authentication** and a **MongoDB-backed API** for secure user and event management.

Stock Simulator | JavaScript, React, Express (Node.js) , Yahoo finance API

Oct – Nov 2024

- Developed **Stock Trainer**, a stock market simulator using **Yahoo Finance API** for real-time data and virtual trading.
- Implemented **risk-free trading, watchlists, and portfolio tracking** to help users practice investing.
- Built **advanced charting tools** for technical analysis, enabling informed decision-making.

ChainChain | sockets (python)

Dec 2024 – Present

- A **decentralized chat app** that prioritizes **privacy and security** by utilizing **peer-to-peer communication** and **end-to-end encryption**.
- The app eliminates the need for central servers, ensuring that users' messages and data remain fully private and secure, while offering real-time messaging and seamless user experience.

Awards

Indomitus CTF MIT Manipal 2025

Mar 2025

- 5th Place / 21 teams; Represented PES University in a national level CTF

Optilink | opencv, dlib, gemini API

Feb 2025

- 6th / 342 teams, Genesys Hack 2025; Placed
- Developed an **assistive typing application for ALS patients** using **eye movement tracking and AI-powered predictive text**, enabling efficient and accessible text input.
- Collaborated in building a **real-time gaze detection system** with **dlib** and **OpenCV**, allowing users to control text input through eye movements.
- Integrated an **emotion-based TTS feature** and **Google Gemini API** for **emotion detection and AI-driven text prediction**, enhancing communication and typing efficiency.

Code of Honour | opencv, keras, sklearn, websockets (python)

Feb 2024

- 3rd Place, Road safety Hack 2024
- Developed a **road safety tool** with **drowsiness detection, accident SOS, and pothole detection**, using **OpenCV, Keras, and scikit-learn** for real-time monitoring and alerts.
- Collaborated in developing the **accident detection model, SOS** and handling of **websockets**.

Extracurriculars

VALORANT Champions | Transcendence, SJCC 2024

Aug 2024

- 1st Place; Led the team with training plans, coordinating matches, etc.