

DEEPAKKUMAR SENTHILMURUGAN

B.E. Computer Science & Engineering | AI · Networking · Emerging Technology

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[LinkedIn](#) | [GitHub](#) | [Portfolio](#)

EDUCATION

PSG College of Technology — B.E., Computer Science and Engineering

AUGUST 2025 – JULY 2028

Currently in Second Year · Coimbatore, Tamil Nadu

PSG Polytechnic College — Diploma, Information Technology

AUGUST 2022 – MAY 2025

Grade: 90% · Coimbatore, Tamil Nadu

SKILLS

Languages & Tools: Python, Java, C, JavaScript, HTML, CSS, SQL, MySQL, Git, GitHub

AI / Data: Machine Learning, Generative AI, Artificial Intelligence, LSTM, XGBoost

Systems & Networking: Computer Networking, Network Switches, Routing, Network Security, Linux, Windows

Other: Graphic Design, Event Management, Project Documentation, Team Leadership, Public Speaking

Languages: English, Tamil, Telugu (Conversational)

EXPERIENCE

IoT Intern — A-Tech Computer System, Coimbatore

MAY 2024 – JUNE 2024

- Completed a hands-on internship in Internet of Things (IoT), building foundational technical knowledge in embedded/connected systems.

Software Developer Intern — SkillCraft

JULY 2026 – Present

- Developing small-scale web applications with modular functionalities, working across both frontend and backend components.

PROJECTS

[CSEA-VR](#) — PSG CSE Innovation Experience Centre VR Experience

[React 18](#) · [Vite](#) · [React Three Fiber](#) · [@react-three/xr](#) · [Tailwind CSS](#) · [Zustand](#)

- Built a browser-based WebXR gallery showcasing 10 zones of department achievements using a staged 2D-to-3D delivery architecture for fast event-day onboarding.
- Designed Applied Draco/KTX2 compression and implemented teleport locomotion with a 2D fallback, supporting 20–100 concurrent visitors across headset and non-headset users.

[SKYE](#) — On-Aircraft Edge AI Diagnostics Platform

[Python](#) · [LSTM Autoencoders](#) · [XGBoost](#) · [Dash](#) · [Federated Learning](#)

- Built a physics-informed synthetic telemetry generator and an LSTM Autoencoder + XGBoost ensemble for fault detection and RUL prediction on turbofan engine data.
- Applied INT8 quantization for edge deployment and simulated privacy-preserving federated learning (FedAvg) across three aircraft nodes with a real-time Dash dashboard.

[VERI-CHAIN](#) — Academic Authenticity Validator

[Node.js](#) ([React frontend](#) + [Express backend](#)) · [Docker](#) · [OCR](#)

- Collaborated on a full-stack application to verify academic document authenticity using OCR-based text extraction and validation checks.
- Containerized the database and services with Docker Compose for consistent local development and team onboarding.

LEADERSHIP & CAMPUS INVOLVEMENT

- Secretary, Brains Trust Club** — PSG Polytechnic College
AUGUST 2024 – JULY 2025
- Joint Secretary, Brains Trust Club** — PSG Polytechnic College
AUGUST 2023 – JULY 2024
- Technical Member, CSEA** — PSG College of Technology
SEPTEMBER 2025 – Present
- Technical Member, GitHub Campus Club** — PSG College of Technology
SEPTEMBER 2025 – Present
- Administrative Member, Radio Hub** — PSG College of Technology
AUGUST 2025 – Present

HACKATHONS

Smart India Hackathon (SIH) 2025 — Internal Round, PSG College of Technology

OCTOBER 2025

- Selected with a 6-member team for the Internal Hackathon of Smart India Hackathon at PSG Tech, mentored by Ms. Abirami S K.
- Collaborated on ideation, problem-solving, and team execution through the qualifying rounds.

ET AI Hackathon 2.0 — The Economic Times & Unstop

JUNE 2026 · In Progress

- Successfully cleared the Phase 1 Technical MCQ assessment round.
- Developed and submitted the functional AI prototype, which is currently in the official validation phase.

InnoVent-27 — Tata Technologies

JUNE 2026 · In Progress

- Successfully cleared the Stage 1 compliance and initial project screening.
- Submitted the virtual Proof of Concept (POC), which is currently undergoing evaluation by Subject Matter Experts (SMEs).

ACHIEVEMENTS & AWARDS

- 1st Prize, PPT Contest — TECH VISION 2025, State-Level Technical Symposium, Christ the King Polytechnic College (FEBRUARY 2025)
- 2nd Prize, PPT Contest — HINSPECTRA 2K25, State-Level Symposium, Hindustan Polytechnic College (MARCH 2025); achievement featured in The Kovai Mail
- 3rd Prize, Paper Presentation — POLYSYM 2025, Nachimuthu Polytechnic College (FEBRUARY 2025)
- 3rd Place, One-Day Paper Presentation — Sri Ramakrishna Engineering College (FEBRUARY 2024)

CERTIFICATIONS & PROFESSIONAL DEVELOPMENT

- Low-Level Design of Payment Apps — Masterclass by Naman Bhalla, Lead Instructor, Scaler Academy
- Become a MAANG Engineer — Masterclass by Anshuman Singh, Co-founder, Scaler
- S.O.L.I.D Principles Every Developer Must Know — Pragy Agarwal, Senior SWE, Scaler Academy
- AI on the Edge — IEEE Students Chapter, PSG Tech
- Workshop on Artificial Intelligence — CISPRO Training and Placement
- Workshop on Networking — Refinement Software Solutions
- Unlocking the Future with Robotics and AI — i-Robochakra, PSG Polytechnic College
- Graphic Designing (SUITS) — Bharathidasan University, First Class Distinction
- Node JS Certification of Completion — Unstop

PUBLICATIONS

- [“GENLEARN: AI-Based 3D Projection Technology”](#) — International Journal of Creative Research Thoughts (IJCRT), FEBRUARY 2024.