Ananya Kedlaya

London, United Kingdom

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A passion to build innovative digital experiences. Blending hardware, programming and creativity into optimised and efficient workflows.

EDUCATION

University College London — September 2026

Master of Science - Connected Environments

IoT, Sensors, Connected Systems, Deep Learning

Acharya Institute of Technology – 3.3 GPA — August 2019 - June 2023

Bachelor of Engineering - Computer Science and Engineering

Software Programming, Databases, Logical Reasoning, Problem Solving

EXPERIENCE

CMTI (Central Manufacturing Technology Institute) — November 2023 - May 2025

Project Associate - R&D role

- **Remote Machine Health Monitoring and Maintenance**: Real-time full-stack web app for 6 machines. Enabled Job tracking, parameter management and reduced manual system check tasks by 50%.
  - Performed database migration from Onsite PostgreSQL to MongoDB.
- **Weld Quality Inspection Software**: A PyQt-based app for real-time monitoring of weld quality, analysed with an ML model built on processed thermal images of the weld bead.
- **User Experience Design** of applications, initial Wireframe and Prototype development with Figma.

PROJECTS

- **Phantom Lines -** PlantomLines
  - Experiencing virtual boundaries in the real world. Identifying points of intersection of a physical “stick” against a virtual AR boundary. Object tracking within Unity and communication via MQTT.
- **Indian National Level AR Hackathon by Wavelaps, BharatXR and XDG Mumbai -** LearnifyApp
  - Web development with React.js, Firebase authentication.
  - User Flow Mapping, designing and prototyping of an AR-based gamified learning experience for high-school students.
- **Text to 3D mesh model using FreeNeRF** - GitHub Repository
  - Pretrained diffusion model for generating images from textual inputs, and implemented FreeNeRF to generate 3D views from sparse input

SKILLS

- JavaScript, React.js, Vue.js
- MERN/PERN stack
- Python, FastAPI, PyQt, Node.js, SQL
- PostgreSQL, MongoDB
- C++, C#, Arduino
- Machine Learning, Image Processing
- PCB programming
- Figma, UI/UX, WIX, WordPress
- MQTT, HTTP, TCP/IP
- Docker, GitHub, Git

ACHIEVEMENTS

- Secured 1st place in Final Year Project Presentation in the CS&E Department
- Headed the Literary Club in college. Conducted debates and poetry sessions.
- Volunteered in Govt. School Beautification Projects enhancing learning spaces in rural areas.