Utkarsha Vishwakarma

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EDUCATION

Indira Gandhi Delhi Technical University for Women (IGDTUW), Delhi   2023 – 2027
B.Tech in Electronics and Communication Engineering   CGPA: 9.23, Dept. Rank: 2

Trinity Convent Sr. Sec. School
CBSE 12th: 91.2%   CBSE 10th: 93.4%

SKILLS

Languages: C++, Python, LaTeX
Web Development: JavaScript, HTML/CSS, Flask, Django, MERN Stack
Tools: Git, VS Code, MySQL
CS Concepts: Data Structures, Algorithms
Soft Skills: Problem Solving, Teamwork, Time Management, Leadership

EXPERIENCE

- **Research Intern — University College London**   *Jul 2025 – Present (Remote)*
  Supervisor: Prof. Philip Treleaven
    - Built an **LLM Recommender System for Finance** to surface domain-specific LLMs for tasks such as risk forecasting, earnings-call summarization, and sentiment analysis.
    - Implemented **Radar**, **Advisor**, and **Explainer** modules—integrating APIs (Hugging Face, arXiv, GitHub), BERTopic, and task-embedding matching for model selection; created plain-language model cards for non-technical users.
    - Automated data ingestion, clustering, and interactive dashboards to reduce trial-and-error in model selection and improve transparency in high-stakes financial settings.

- **Texas Instruments WiSH'25 (Women in Semiconductors & Hardware)**   *May–Jun 2025 (Hybrid)*
    - Selected among the top 150 for a 5-week mentorship in digital, analog, and embedded systems. *Certificate*
    - Collaborated on real-time, microcontroller-based systems.
    - Led a team to win **1st Prize** in TI WiSH'25 7-day Hackathon with the *Smart Streetlight System*.
    - Earned a pre-internship offer for Summer 2026 (Analog Engineering) at TI following exceptional performance at WiSH'25.

SOFTWARE PROJECTS

Wiggles (MERN Stack) - GitHub   Ongoing
Built a full-stack pet-parenting platform with user authentication, real-time updates, and MongoDB-based data persistence. Contributed to backend API development and React state management.

Personal Portfolio Website (Full Stack) - GitHub | Live Site   2024
Developed and deployed a responsive portfolio with integrated GitHub. Built using React, Node.js, Express, MongoDB, and hosted on Vercel.

Pet Adoption Platform (HTML/CSS, JS) - GitHub | Live Site   2023
Created a responsive single-page application simulating a virtual pet adoption workflow. Focused on DOM manipulation and clean UI/UX design.

AI Assistant "Jarvis" (Python)   2021
Voice-controlled assistant using speech recognition, pyttsx3, and automation.

Hitman Game (Python, Pygame)   2021
Multi-level 2D arcade game with OOP and interactive handling.

ELECTRONICS PROJECTS

Smart Streetlight Dimming (Radar, Embedded C)   TI WiSH'25
An automated lighting solution using microcontrollers, LDR sensors, and RF modules to optimize energy use through ambient light sensing, motion detection, and remote monitoring. Used AWR6843 & CC1312R7 MCU to create a radar-based dimming prototype.

Heart Rate Monitor (PPG)   TI WiSH'25
Pulse detection circuit with LED and photodiode; stable analog signal processing.

Touch Light Control (Darlington Pair)   2025
Touch-sensitive LED control using current amplification via Darlington pairs.

Automated Night Lamp (Op-Amp, LDR)   2025
Op-Amp comparator with LDR and relay for ambient light-triggered switching.

ACHIEVEMENTS

- SheFi Scholar '24 – Women in tech mentorship
- Branch Upgrade – From Mechanical to ECE due to high academic performance
- 100+ DSA problems solved (LeetCode, Codeforces, GeeksforGeeks)
- AlgoUniversity Scholar – Cleared DSA Round 1
- Full-Stack Web Development Training [Certificate]

EXTRACURRICULARS

- Coordinator – Training & Placement Cell (IGDTUW) – Managed placement & internship activities for the ECE department.
- DSA Mentee – Google Developer Group IGDTUW
- Event Coordinator – Taarangana (IGDTUW Cultural Fest)
- Member – Synergy Athletics Society (IGDTUW)
- Vice President – Welfare Society, Trinity Convent