DEEPANSHU SHARMA

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[Portfolio](#) | [LinkedIn](#) | [Github](#) | [LinkTree](#)

EDUCATION

MGM University Jawaharlal Nehru Engineering College   Chh. Sambhajinagar, Maharashtra
B.Tech Computer Science Engineering   August 2021 - May 2025

EXPERIENCE

PowerX Pvt. Ltd. – *Smart Traffic System*   Chh. Sambhajinagar | Dec 2024 – May 2025
- Contributed to UrbanSafeFlow, an AI-based adaptive traffic control system.
- Developed real-time traffic density detection using YOLOv9 and OpenCV.
- Designed WebSocket-based communication for multi-camera input handling and timer logic.
- Implemented emergency vehicle priority via geofencing, low-light performance, and real-time CSV logging.

Snovel Creations Pvt. Ltd. — *Alexa Skill Developer (R&D Project)*   Remote | Oct 2022 - Jan 2023
- Created Alexa skill for content platform with AWS team.
- Gained hands-on experience with Voice UI, AWS Lambda, and Alexa Developer Console.
- Collaborated with a cross-location team including AWS engineers to meet tight deadlines.

Hackathon & Project-Based Experience   2021 – 2025
- Winner, **Smart India Hackathon (2022, 2023, 2024)** with AI/IoT solutions including **Tongue-Controlled Wheelchair, Drone Surveillance & Smart Traffic Management System**.
- Secured government and institutional grants for research-based projects; presented at national research conventions.

SKILLS

Programming Languages:	Python, Java, HTML, CSS, JavaScript
Libraries/Frameworks:	OpenCV, React.js, Dash, WebSockets, Flask, Firebase
Tools & Platforms:	GitHub, VS Code, XAMPP, Figma
Databases:	MySQL, MongoDB, Firebase
Soft Skills:	Communication, Teamwork, Leadership, Problem-Solving

PROJECTS

UrbanSafeFlow – Real-Time Traffic Signal Optimization (*SIH 2024*)   *2024*
- Problem Statement by: **Department of Science and Technology**
- Built a multi-camera traffic system using YOLOv9, OpenCV, Python, and WebSocket for real-time signal control.
- Implemented lane-wise green light timing logic, emergency vehicle detection, and CSV-based data logging.
- Optimized for low latency and modular cycle-based execution; tested in live traffic simulations.

Drone-Based Surveillance System (*SIH 2023*)   *2023*
- Problem Statement by: **Ministry of Ports, Shipping and Waterways**
- Engineered a real-time surveillance solution using Raspberry Pi, Python, and onboard camera integration.
- Captured live aerial footage and performed threat detection and area mapping.
- Aimed at security monitoring for smart cities and campus applications.

AI-Powered Assistive Wheelchair (Govt. Funded Project with ALIMCO)   *2023*
- Developed a smart wheelchair with AI-based navigation and Tongue Control, using Micro Processors, Micro Controllers, IoT sensors, and embedded systems.
- Designed for physically challenged individuals to enable hands-free mobility through intuitive sensor input.
- Received a ₹2.5 lakh grant from the ***Department of Empowerment of Persons with Disabilities (Divyangjan), Ministry of Social Justice and Empowerment*** in collaboration with ***ALIMCO (Artificial Limbs Manufacturing Corporation of India)*** for prototype development.

DeepSan-Travels Website   *2023*
- Created a dynamic travel website using HTML, CSS, JS, with Php for contact form data storage.
- Included destination filtering, responsive layout, and user-friendly UI/UX.
- Deployed for live demos as part of web development showcase.

Tongue Operated Wheelchair (*SIH 2022*)   *2022*
- Problem Statement by: ***Department of Empowerment of Persons with Disabilities (Divyangjan), Ministry of Social Justice and Empowerment***
- Designed a mobility aid controlled via tongue pressure sensors, integrated with Arduino and Bluetooth modules.
- Enabled movement commands for physically challenged users through mouth gestures.
- Tested successfully in real-time conditions with safety and responsiveness features.

Mouth Open-Close Detection System | *OpenCV, Python, Dlib* *2022*
- Developed a gesture recognition tool using OpenCV, Dlib, and Python to detect yawning/mouth movement.
- Used facial landmarks to trigger responses for health monitoring and assistive tech applications.
- Tested under real-time video streams with high frame accuracy and minimal lag.

AWARDS & ACCOMPLISHMENTS

- **Winner – Smart India Hackathon (SIH) 2022**
  Problem Statement RK 760 | *Ministry of Social Justice and Empowerment*
- **Winner – SIH 2023**
  Problem Statement SIH 1310 | *Ministry of Ports, Shipping, and Waterways*
- **Winner – SIH 2024**
  Problem Statement SIH 1607 | *Department of Science and Technology*
- **Selected for IDE Bootcamp Phase 2**
  National Institute of Engineering, Mysore | Ministry of Education (MoE) & AICTE
- **Selected for IDE Bootcamp Phase 3**
  National Institute of Technology, Goa | Ministry of Education (MoE) & AICTE
- **Selected for 2nd Edition of IDE Bootcamp Phase 2**
  Indian Institute of Technology, Jammu and Kashmir | Ministry of Education (MoE) & AICTE
- **Received ₹2.5 Lakh Grant**
  For Tongue-Operated Smart Wheelchair | Ministry of Social Justice and Empowerment & ALIMCO
- **Nominated for International Hackathons**
  - Singapore–India Hackathon
  - UNESCO–India–Africa Hackathon 2022
  - Luxembourg–India Hackathon
- **Qualified for ANVESHAN – University Level | MGM University**
  - *2022–23*: Engineering & Technology
  - *2023–24*: Interdisciplinary
  - *2024–25*: Interdisciplinary
- **Winner – ANVESHAN West Zonal (State Level)**
  - *2022–23*: Engineering & Technology | Ajeenkya DY Patil, Pune
  - *2023–24*: Interdisciplinary | Shivaji University, Kolhapur
  - *2024–25*: Interdisciplinary | DY Patil, Navi Mumbai
- **Finalist – ANVESHAN International Conventions**
  - *2022–23*: Ganpat University, Gujarat
  - *2023–24*: Mumbai University, Mumbai
  - *2024–25*: Chitkara University, Punjab
- **Organizer – Internal Hackathon Rounds for SIH**
  - *Smart India Hackathon 2022, 2023, 2024* | MGM University

CERTIFICATIONS

- PHP and MySQL Training – Spoken Tutorial, IIT Bombay
  Organized at JNEC | Score: 69.44%
- Java Training – Spoken Tutorial, IIT Bombay
  Organized at JNEC | Score: 65.00%
- Advanced Python Bootcamp (7 Days) – ED Spread
  Completed under instructor Hemant Challa
- E-Commerce & Tech Quiz – Flipkart GRiD 5.0 – Unstop & Flipkart
  Level 1.1 | Software Development Track
- Android Development – Great Learning (Link)
- HTML Programming – Great Learning (Link)

POSITION OF RESPONSIBILITY

- **Design Head – *CSI (Computer Society of India), JNEC***
  Led visual branding and design strategy for all CSI events and campaigns.
- **Core Member – *CSI, JNEC Chapter***
  Active contributor to technical events, workshops, and community development initiatives.
- **R&D Team Member – *Youth Conclave, JNEC***
  Worked on content curation and research strategy for panel discussions and speaker sessions.
- **Presentation Committee Head – *Youth Conclave, JNEC***
  Oversaw all visual content, slide decks, and stage presentation flows during the event.
- **Organizing Team Member – *Youth Conclave, JNEC***
  Managed event coordination, speaker engagement, and on-ground logistics.