Tejas Nayak

Full-stack + AI

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Achievements

- 1st place – Monaithon Hackathon at JNNCE, Shivamogga (Certificate)
- 1st place – Plasma 2K24 Hackathon at JNNCE, Shivamogga (Certificate)
- 1st place – Hack-a-thon, College Techfest (Certificate)
- 2nd place – Hacknight 2024 Hackathon at Sahyadri Engineering College (Certificate)
- 2nd place – Web-design Competition, College Techfest (Certificate)
- 2nd place – Hackhunt Competition, College Techfest (Certificate)
- 2nd place – Tech Treasure Hunt Competition, YUGMA TechFest 1.0 at JNNCE, Shivamogga (Certificate)

Skills

Frontend Development:
- HTML,CSS
- TailwindCSS
- JavaScript
- React
- Next.js
- Three.js

Backend Development:
- Node.js
- Express
- Django
- Flask
- RESTful API Design

Databases:
- SQL
- MongoDB
- Firebase SDK

Programming Languages:
- C/C++
- Python

Summary

Full-stack + AI developer skilled in integrating intelligent models into scalable web apps. Built AI-powered tools (Sitescan), medical segmentation pipelines (MONAI), and 3D real-time systems (WebRTC). 4+ hackathon wins, strong focus on performance and user experience.

Experience

1. *Front-End Developer Intern – WAKUWAKU Studio (Mar 2025 – Apr 2025) (Certificate):*
- Selected via GitHub for front-end development internship at a startup.
- Maintained and enhanced **comicstrick.art** using **Nuxt.js, Three.js, TailwindCSS**.
- Improved UI, fixed bugs, and optimized site performance.
- Collaborated in an agile team and delivered tasks on time.
- Awarded an official certificate for excellent performance

Projects

1. *Brain Tumor Segmentation – Volumetric MRI Analysis with MONAI & PyTorch (tejasnayak25/brain-tumor-segmentation):*
- Tech Stack: MONAI, PyTorch, Jupyter Notebooks, BraTS Dataset
- Engineered a **reproducible pipeline** for volumetric brain tumor segmentation using **MONAI** and **PyTorch**.
- Implemented **UNet** and **VNet** architectures for accurate tumor segmentation from BraTS-style MRI datasets.
- Delivered preprocessing, training, and evaluation workflows via **Jupyter Notebooks**.
- Optimized for scalability and reproducibility in medical imaging research.

2. *Sitescan - AI-Powered Web Auditing Tool (tejasnayak25/sitescan):*
- Tech Stack: Next.js, Puppeteer, Node.js, REST APIs, AI models (Gemini), JSON reporting
- Engineered a full-stack platform to analyze **SEO, performance, accessibility, and security** of any website.
- Integrated **Gemini AI** to generate dynamic scores and **actionable code-level recommendations**.
- Automated scanning using **Puppeteer** and exposed structured **JSON reports + dashboard UI**.
- Implemented detection for **web vulnerabilities (XSS, SQLi)** and **Web Vitals** optimization.
- Deployed on **Vercel**, enabling real-time testing and feedback.

3. *Aula – Online Learning & Classroom Platform (tejasnayak25/aula):*
- Tech Stack: Next.js, TailwindCSS, Node.js, Firebase, REST APIs
- Engineered a full-stack **online learning platform** with features like course creation, enrollment, and progress tracking.

- Java
- JavaScript

Frameworks / Libraries

- MediaPipe
- Numpy
- Matplotlib

Tools

- Git & Github
- Postman
- Firebase
- GCP
- Huggingface
- Kaggle
- Colab
- Vercel

Education

Present - 2027
B.E in Computer Science
SMVITM
Bantakal

04/2023
Higher Secondary - 12th Grade
Jnanaganga PU College
Nellikatte, Udupi

Links

Portfolio
Github
LinkedIn
Kaggle

- Integrated **Firebase SDK** for authentication, real-time database, and cloud storage.
- Built responsive **UI components** using React, Next.js, and TailwindCSS for a seamless user experience.
- Enabled real-time updates and notifications for courses and assignments.
- Deployed the application on **Vercel**, supporting multi-user interactions and scalability.

4. *Manjari – AI-Powered Language Learning Platform (tejasnayak25/manjari):*

- Tech Stack: React, TailwindCSS, Node.js, Firebase, AI Models (Gemini)
- Engineered a **progressive web app** to gamify language learning for beginners.
- Integrated **AI models** to generate dynamic, personalized quiz content.
- Utilized **Firebase** for user authentication and real-time progress tracking.
- Designed a responsive UI with **React** and **TailwindCSS** for an engaging user experience.
- Deployed on **Vercel**, enabling seamless access across devices.

5. *HandMouse – Gesture-Based Mouse Control System:*

- Tech Stack: Python, MediaPipe, PyAutoGUI
- Engineered a Python application enabling **gesture-based mouse control** using webcam input.
- Implemented **hand tracking** with **MediaPipe** and **PyAutoGUI** for cursor movement and clicks.
- Supported gestures:
- **Index finger movement** for cursor control.
- **Pinch gesture** (thumb + index) for clicking.
- **Index + middle finger movement** for scrolling.
- Optimized cursor movement with **smoothing algorithms** for natural interaction.
- Compatible with **Windows OS** and requires **Python 3.7+** and a **webcam**.

6. *3Dmeet – Real-Time 3D Video Conferencing Platform (tejasnayak25/3dmeet):*

- Tech Stack: Three.js, WebRTC, Mediapipe, Kalidokit, Node.js, Express, Socket.IO
- Engineered a lightweight, browser-based 3D meeting application supporting real-time avatar-based interactions.
- Integrated **Mediapipe** and **Kalidokit** for **pose and facial expression tracking** using webcam input.
- Utilized **WebRTC-style socket updates** for low-latency audio and video streaming.
- Implemented a **Node.js/Express server** with **Socket.IO** for scalable real-time communication.
- Enabled users to create and join virtual meeting rooms with shared 3D spaces.