Deepesh Dhanvijay

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PROFESSIONAL SUMMARY

Full-Stack Developer with expertise in building scalable web applications using React.js, Node.js, Express.js, and MongoDB. Skilled in designing RESTful APIs, creating responsive user interfaces, and implementing real-time features with WebSockets. Experienced in cloud deployment on AWS EC2 and delivering high-quality solutions in Agile environments.

TECHNICAL SKILLS

Frontend: React.js, Next.js, HTML5, CSS3, Tailwind CSS, JavaScript (ES6+), TypeScript, Redux
Backend: Node.js, Express.js, RESTful API, JWT Authentication
Database: MongoDB, MySQL
Tools & Cloud: Git, GitHub, VS Code, Postman, AWS EC2, Google Cloud, Docker, CI/CD
Other: WebSockets, Agile Development, JSON

EXPERIENCE

Software Developer(MERN Stack)   September 2025 – Present
Formonex Solutions   *Pune, India*

- Developing a dental practice management SaaS using React.js, Node.js, and MongoDB.
- Implemented multi-role authentication, appointment scheduling, and financial tracking features.
- Collaborated with designers to create a responsive, user-friendly interface.
- Improved application response time by 20% and reduced API latency by 15%.

Software Developer Internship   July 2025 – August 2025
CodTech IT Solutions   *Pune, India*

- Developed a static website for a developer's portfolio using ReactJS, HTML, CSS, and JavaScript, with **6 sections** and **15+ reusable components**
- Designed a RESTful API using Node.JS and Express for a library/inventory system with **4 CRUD endpoints** and support for **500+ records**
- Built a collaborative coding/note-taking tool using WebSocket for real-time updates, supporting **multiple users** with **less than 200ms latency**
- Refactored two open-source projects (Sorting Visualizer and Path Finder), reducing code size by **25%** and improving performance by **40%** in execution speed

Web Developer Internship - Deploying Login API On Amazon Web Ser-   June 2023 – Aug. 2023
vices – EC2
Tech Mahindra   *Pune, India*

- Worked with development team of web platform for login page creation and hosting on AWS EC2
- Utilized MySQL for backend data base and Node.JS(Express.JS) and for polished and responsive front end I used ReactJS, CSS, JS node
- Worked on the visual part of the website – the pages visitors see and interact with the design of physical layout of each page, integrating graphics to enhance the site

EDUCATION

National Institute of Technology, Tiruchirappalli   **CGPA - 7.01/10**
Bachelor of Technology - Electronics and Communication Engineering   *2020 – 2024*

Sri Chaitanya Junior College, Hyderabad   **96.60%**
12th *TSBIE board*   *2018 – 2020*

Mount St. Patrick Academy, Pune   **86.40%**
10th *ICSE board*   *2018*

PROJECTS

Full-Stack E-Commerce Web Application   September 2025
- Developed a full-featured E-Commerce web application using React.js, Node.js, Express.js, and MongoDB.
- Implemented user authentication, product catalog with **500+ items**, shopping cart, and payment gateway integration.
- Optimized frontend performance, achieving **40% faster load times** and responsive UI across all devices.

Fostering Collaborative Health Care: Privacy – Preserving Medical Image Segmentation with March 2024 - May 2024
Federated Learning
- Implemented **Federated Learning (FL)** for medical image segmentation, enabling collaboration across **5+ medical institutions** while safeguarding patient privacy
- Applied FL to perform **decentralized model training** over **1,000+ annotated medical images**, preserving privacy by aggregating model updates instead of sharing raw data
- Incorporated **3 key privacy protection strategies**, including advanced data anonymization, to prevent re-identification of patient data
- Evaluated FL's feasibility in segmenting **multi-class medical images** and explored **feature-based data separation**, resulting in a **12% improvement in model performance**
- Trained and validated models using **real-world healthcare datasets** from multiple sources to ensure robustness and applicability
- Achieved outcomes indicating **up to 15% faster training convergence** and improved segmentation accuracy, promising enhanced healthcare delivery through collaborative, privacy-preserving AI models

Human Gesture and Emotion detector using Deep Learning   January 2022
- Trained a gesture recognition model on **5,000+ labeled gesture images** and optimized an emotion detection model using **Python** and the **VGG-16 architecture**
- Applied **4+ image data augmentation techniques** (rotation, flipping, scaling, and shifting), leading to a **15% improvement in model accuracy**
- Achieved **90%+ accuracy** in gesture detection and **85% accuracy** in emotion classification after hyperparameter tuning
- Designed the system to aid communication for individuals with disabilities such as **hearing loss** and **speech impediments**, enabling real-time translation of gestures and facial expressions
- Tested the models on a **dataset covering 7 distinct emotions** and **10 unique gestures**, ensuring robust performance across diverse scenarios

Online Payment Fraud Detection using Machine Learning   April 2022
- Utilized a **credit card transaction dataset with 2,84,807 records**, performing extensive data preprocessing to ensure clean and reliable inputs
- Selected **10+ relevant features** to construct the input vector and used the **"isFraud"** column to define the output vector
- Trained a **Decision Tree Classifier** on the processed dataset, achieving **94% prediction accuracy** in detecting fraudulent transactions
- Designed the system to predict fraud in **real time** by passing new transaction data through the trained model
- Reduced false positives by **8%** through feature selection and parameter tuning, improving trustworthiness of fraud alerts

Prediction Model for Heart Disease using Machine Learning   June 2021
- Developed a **Logistic Regression Classifier** using the Logistic Regression algorithm to assess heart disease risk
- Trained the model on a **303-record heart disease dataset** with **13 key features** including blood pressure, age, cholesterol level, and maximum heart rate
- Utilized **Python, Scikit-learn, and Pandas** for model development on the **Google Colab** platform
- Achieved **88% accuracy** in predicting potential heart disease cases after hyperparameter tuning and cross-validation

- Designed the model to assist healthcare providers in early diagnosis, reducing the chances of delayed intervention by **up to 20%**

Positions of Responsibility

PRAGYAN MANAGER, TECH FEST, NIT TRICHY   Sept. 2022 – April 2023
- Worked as a manager of Workshop Team of Pragyan'23 an international techno- managerial festival of Nit Trichy
- The scope of this role was to conduct activities from various fronts, ranging from contacting a company to convincing students to take the opportunity provided and publicize the workshop conducted by the fest

PROBE CORDINATOR, ECE DEPT. SYMPOSIUM, NIT TRICHY   January 2022
- Worked as a Coordinator of Workshop Team of Probe'22, the national level technical symposium of department of Electronics and Communication Engineering, NIT Trichy
- As a part of the team, conducted a Deep Learning workshop for 200+ participants

FESTEMBER DEPUTY MANAGER, CULTURAL FEST, NIT TRICHY   April 2021 – Sept. 2022
- Worked as a deputy manager of Public Relations Team of Festember'22, the National level inter college cultural fest of NIT Trichy
- As a part of the helpdesk and coordinator team, work specifically involved in dealing with Students, from their registration to accommodation

Certifications

- **Professional Certificate Prepaid: IBM Generative AI Engineering**
  Ongoing specialization in Generative AI Engineering, focusing on LLMs, prompt engineering, and AI deployment.
  September, 2025

- **Google Cloud Arcade Program**
  Ongoing certification covering Google Cloud products and hands-on labs.
  In Progress, 2025

- **100 Days of Code: The Complete Python Pro Bootcamp – Udemy**
  Learned and completed projects on Data Science, Python Automation, Web Development, GUI Automation, Game Building, CSS, HTML, and OOP.
  Certificate Link
  Mar. 2025 – Jun. 2025

- **Machine Learning and Neural Network – Techgyan**
  Certificate Link
  Jun. 2024 – Jul. 2024

- **C/C++ Programming – Broadcast Engineering Consultants India Limited**
  Certificate Link
  Aug. 2022 – Oct. 2022

Extracurriculars

- District-Level football, NITT Institute Team Football Player

- Inter-School Football, Basketball, Chess, Marathon, Table-Tennis, Volleyball

- Gold Medalist at Happy Feet Football Academy, Pune

- Ideated events for Leap, Environmental Club, NIT Trichy

- Donated blood in events organized at NITT Hospital and A-Flight NCC NITT

- Volunteered with NSS at NITT alongside Deputy Manager