

NEEL PRAJAPATI

[Linkedin](#) | Neelpraj2003@outlook.com | +919979332111

SUMMARY

Motivated and detail-oriented **Software Engineer** with a strong focus on **Artificial Intelligence/Machine Learning (AI/ML)**, **Cloud Computing**, and **Full Stack Development**. Experienced in building and deploying **AI-powered applications**, **cross-platform** systems, and **cloud-native** solutions using **Python**, **.NET**, and **React**. Proven ability to design scalable, data-driven systems and deliver impactful software solutions. Strong foundation in **programming**, **API development**, and **modern frameworks**. Passionate about continuous learning, innovation, and collaborating in dynamic team environments to solve real-world problems using intelligent technologies

SKILLS

- **Programming Languages:** Python, C#, Java, JavaScript, C++, Bash, SQL, NoSQL
- **Frameworks & Libraries:** Django, Flask, FastAPI, .NET, React, Node.js, .NET MAUI, TensorFlow, PyTorch, Keras, Scikit-Learn, Hugging Face Transformers, LangChain, OpenCV
- **AI/ML & Data Science:** Machine Learning, Deep Learning, Natural Language Processing (NLP), Computer Vision, Optical Character Recognition (OCR), Pandas, NumPy, Matplotlib, Seaborn, LangChain, Transformers, Hugging Face, Scikit-learn
- **Web Scraping & Automation:** BeautifulSoup, Scrapy, Selenium, Playwright, Streamlit, Gradio
- **DevOps, Cloud & Version Control:** Microsoft Azure, AWS, Google Cloud Platform (GCP), Docker, Git, CI/CD, DevOps, Firebase, Vercel
- **Tools & Development Environments:** Visual Studio, VS Code, Android Studio, GitHub, Linux (Ubuntu), Windows
- **Soft Skills & Methodologies:** Team Collaboration, Analytical Problem-Solving, Adaptability, Effective Communication, Agile/Scrum, Responsive UI Design, API Development (RESTful)

EDUCATION

Gujarat Technological University (Sardar Vallabhbhai Patel Institute of Technology) 08/2021 - 04/2025
Vasad, Gujarat, India
Bachelor's in Computer Science (CGPA: 8.8 / 10)

PROFESSIONAL EXPERIENCE

Webbrains Technologies Private Ltd 01/2025 - 04/2025
Python AI/ML Intern

Company specializing in web development and AI solutions

- Applied Object-Oriented Programming (OOP) principles to design clean, modular, and maintainable code for scalable web applications using Flask, Django, and FastAPI.
- Developed and trained machine learning and deep learning models using TensorFlow, Scikit-Learn, and Keras to address complex problems.
- Automated data extraction processes by creating web scrapers with BeautifulSoup and integrating APIs for efficient data collection.
- Built AI-driven solutions including chatbots, natural language processing (NLP) workflows, and computer vision applications with OpenCV.
- Deployed applications on Microsoft Azure with CI/CD pipelines to ensure scalable, reliable, and efficient cloud-based delivery

Oil and Natural Gas Corporation Limited (ONGC) 06/2024 - 07/2024
Software Engineer Intern

An Indian multinational oil and gas company

- A cross-platform American Sign Language (ASL) recognition app using React Native, Flask, and MediaPipe for real-time gesture detection.
- Applied Convolutional Neural Networks (CNNs) to accurately recognize hand gestures via live camera feed and convert them into alphabetic characters.
- Integrated speech synthesis and dynamic visual feedback to improve accessibility for the deaf and hard-of-hearing community.
- Built and deployed a client-server architecture to support efficient real-time ASL interpretation across mobile and web platforms.
- Enhanced user experience by automating gesture recognition and enabling seamless communication through AI-driven solutions

PROJECTS

Track Food Waste (trackfoodwaste.com) 04/2025

A SaaS platform focused on reducing food waste through user engagement and AI solutions

- Track Food Waste is a full-featured SaaS platform that enables logging and reducing food waste
- User Authentication & Subscription Management handled through Firebase Auth
- Waste Logging System allowing easy logging of daily food waste entries

- Data Visualization providing insights into waste trends using charting libraries
- AI-Powered Recommendations analyze user data for actionable recommendations

AI-Powered Smart Education Assistant

03/2025

An application enhancing personalized learning using advanced AI techniques

- Developed an intelligent learning assistant using C# .NET, Python, and MongoDB, featuring AI-generated flashcards and adaptive study modes to personalize the learning experience.
- Implemented OCR and Natural Language Processing (NLP) models for extracting and summarizing educational content, improving content organization and accessibility.
- Created an AI-driven quiz generator that formulates personalized quizzes from flashcards, increasing knowledge retention by over 40%.
- Deployed the solution on Microsoft Azure with secure APIs and cloud-hosted ML models, ensuring scalability, security, and seamless user experience.

AI-Powered Agricultural Assistant: Smart Solutions for Sustainable Farming

11/2024

An application providing smart solutions for sustainable agriculture practices

- Built a smart agriculture assistant using .NET MAUI, Azure Custom Vision, and the ChatGPT API to help farmers with real-time decision-making support.
- Integrated AI and computer vision for crop disease detection, crop recommendations, and nutrition guidance tailored to specific farming needs.
- Designed a modular API backend that connects trained AI models to the frontend for seamless user interaction and rapid updates.
- Contributed to sustainability by empowering data-driven and organic farming practices, improving yield efficiency.

IOT-Based Solar Panel Monitoring and Cleaning System

05/2024

An IoT solution that enhances solar panel performance using machine learning

- Designed an end-to-end IoT solution using Raspberry Pi, Flask, and machine learning to detect dust on solar panels through image processing.
- Automated the cleaning process with stepper motors, water pumps, and sprinklers triggered by ML-based dust classification.
- Enhanced solar panel efficiency by reducing manual effort and optimizing cleaning cycles based on environmental data.
- Built a companion mobile app using React Native for real-time monitoring of system status and performance metrics.

Image-to-Text OCR Application Hosted on Azure

- Built an OCR application using Python, Flask, and Azure OCR API for extracting text from uploaded images.
- Enabled text download in .txt and .docx formats, simplifying document digitization and reducing manual work.

CERTIFICATION

- Meta Front-End Developer Specialization | [LINK](#)
- IBM Back-End Development Specialization | [LINK](#)
- Meta Android Developer Specialization | [LINK](#)
- Meta React Native Specialization | [LINK](#)
- Machine Learning Specialization | [LINK](#)
- Microsoft Azure AI Fundamentals AI-900 Exam Prep Specialization | [LINK](#)
- Google UX Design Specialization | [LINK](#)

VOLUNTEERING

Prakarsh 2024 Web Developer

02/2024

Developed the official Prakarsh 2024 website using React.js, Tailwind CSS, and Shadcn UI for a responsive, visually appealing experience. Integrated real-time event updates, registration forms, and schedules, enhancing user engagement and accessibility. Optimized website performance for faster loading and collaborated with the coordination team to ensure content accuracy.

PUBLICATIONS

Crop Yield Prediction Using Machine Learning Algorithms: An Integrated Approach with Satellite Data

08/2024

Integrated satellite data (Landsat, MODIS) with FAO datasets to predict crop yields using machine learning. Evaluated seven models, with XGBoost excelling in India and Linear Regression performing best in the USA. Enabled accurate agricultural planning with robust predictions validated by 2022 data and insights for 2023.

AI-Powered Health Monitoring: Leveraging BERT and Azure App Service for Advanced Predictive Analytics and Personalized Early Disease Detection

09/2024

Leveraged BERT and Azure App Service for semantic symptom analysis and personalized early disease detection. Enhanced prediction accuracy using cosine similarity and deployed scalable, real-time analytics via Azure. Optimized healthcare with tailored recommendations, improving patient outcomes and resource efficiency.