# Ashutosh Kumar Tejaswi

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# Summary

Full Stack Developer skilled in building end-to-end web applications with expertise in JavaScript (React, Next.js), Python (Django, Flask), and scalable backend architectures. Experienced in designing RESTful APIs, integrating databases (MongoDB, MySQL, PostgreSQL), and deploying production-ready solutions on cloud platforms. Proficient in creating responsive frontends with React/Tailwind and optimizing backends for real-time performance. Strong foundation in AI/ML integration, data-driven applications, and interactive dashboards, bridging software engineering with intelligent system design. Collaborative team player with hands-on project experience and proven ability to translate business needs into robust, user-friendly applications.

## Projects

### Rooftop Solar Energy Generation Prediction

Code Link

- Developed a lightweight, scalable machine learning model for hourly rooftop solar output, showcasing proficiency in data exploration, preprocessing, and model development.
- Outperformed deep learning baselines with an optimized model, achieving RMSE = 0.0391 and  $R^2$ = 0.9617.
- Demonstrated proficiency in prototyping and testing by optimizing the model for deployment with a low average inference time (6 ms), enabling real-time integration.
- Documented development process and methodologies by authoring an **IEEE-format research paper** draft, comparing multiple models (CatBoost, LSTM, Bi-LSTM, GRU, Transformer).

## Smriti AI – Instant Chatbot Generator

Code Link

- Built a platform to generate fully customized, low-code chatbots in under a minute, leveraging Generative AI frameworks for company- and product-aware conversations.
- Enabled direct export of the chatbot as an **iframe script**, allowing users to embed a visually appealing, ready-to-deploy assistant on any website with minimal effort.
- Applied advanced Natural Language Processing (NLP) for multi-format data ingestion (text, PDF), ensuring accurate knowledge transfer and high-quality model training.
- Engineered a robust backend for efficient data parsing, cutting setup time by over 90% and making deployment accessible to non-technical users.

#### RTVNR & Location Tracking

Code Link

- Built a Real-Time Vehicle Number Plate Recognition and Location Tracking system to help law enforcement quickly trace suspicious vehicles.
- Combined OpenCV, TensorFlow, and OCR to detect plates and store numbers with camera geolocation in a MongoDB-based backend for scalable, low-latency retrieval.
- Designed a lightweight Django interface for live monitoring with minimal compute overhead, developed during my second year.

## Work Experience

#### AI Intern, Infosys

Aug 2025 – Oct 2025

• Currently working with the AI team on Generative AI solutions involving Large Language Models (LLMs) and Natural Language Processing (NLP).

## Trainee, IIIT Naya Raipur

May 2025 - July 2025

• Led the development of 'SolarPredict,' a lightweight ML forecasting model, as the capstone project for the intensive training program, resulting in a submitted IEEE conference paper.

# Intern, Krishna Vikash Group of Institutions (KVGI), Odisha

Mar 2024 - Apr 2025

- Applied scalable backend design and API integration principles, later leveraged in deploying AI/ML models into interactive dashboards and real-time monitoring tools.
- Enhanced proficiency in HTML, CSS, JavaScript, and MVC frameworks, strengthening the ability to integrate AI systems into production-ready applications.

## EDUCATION

#### Bachelor of Computer Science and Engineering

Oct 2022 - Mar 2026

- Krishna's Vikash Institute of Technology

# CERTIFICATIONS

- Vocational Training Certificate in Python Basics, Data Science, Artificial Intelligence, Machine Learning, and Deep Learning IIIT Naya Raipur
- Infosys Principles of Generative AI Certification
- Infosys Artificial Intelligence Primer Certification
- Vocational Training Certificate in Machine Learning with Python Rays IT and Design World
- Google Cybersecurity Professional Certificate

# SKILLS

Programming Languages Python, JavaScript, HTML, CSS

Frameworks & Libraries TensorFlow, PyTorch, scikit-learn, React, Next.js, Django, OpenCV,

Numpy, Pandas, Matplotlib, Seaborn

**Domain Expertise** Generative AI, Large Language Models (LLMs), Natural Language Pro-

cessing (NLP), Computer Vision, Data Science, Data Structure, Cloud

Computing

Databases & Tools

Soft Skills

MongoDB, Git, MySQL, SQL, Postgres, Redis, MS Excel, Power BI

Problem-Solving, Communication, Adaptability, Collaboration, Creativity,

Time Management

## Publications

**Ash, john** SolarPredict: A Lightweight Machine Learning Model Using Weather and Temporal Features. Paper submitted to an IEEE INDICON conference, December 2025.

Last updated: October 10, 2025