

# Nikhil Choudhary

Kolkata, West Bengal

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## Education

**KIIT University**

September 2021 – Present

Bhubaneswar, India

CGPA – 8.1

## Skills

- **Languages:** C, C++, SQL, Git, Python, HTML, CSS, JavaScript, TypeScript
- **Frameworks:** OpenCV, TensorFlow, React, Tailwind, Hono
- **Developer Tools:** GitHub, VS Code, PyCharm, Jupyter Notebook, Docker
- **Libraries:** Keras, Pandas, NumPy, Matplotlib, Seaborn

## Work Experience

**Artificial Intelligence Intern** | [Link](#)

May 2024 - June 2024

TATA Steel – Kolkata, India

Hybrid

**Project Name :** Cut & Bent bend Detection and Image Classification

- Modernized a bend detection technique that accurately counted bends in Cut & Bent Rebar shapes using advanced computer vision, which **improved production efficiency**.
- Established a Deep Learning model utilizing convolutional neural networks for Rebar Image Classification, achieving a remarkable 95% accuracy rate in classifying unique Rebar cases across 4 main categories.
- **Consistently delivered** results ahead of schedule through strategic planning and strong co-ordination.

## Projects

**Car Tyre Condition Checking** | [Link](#)

December 2023 - March 2024

**Tech Stack** – Python, OpenCV, NumPy, Pandas, Keras

- Established a model that analyzes the condition of tyres using image processing along with contour detection and edge detection techniques to identify and analyze cracks in tyres.
- Developed and trained a Deep Learning Classification model to classify processed images into either bad Quality or Good Quality **alerting the driver to change tyres accordingly**

**Thoughts Blogging Website** | [Link](#)

September 2024 - October 2024

**Tech Stack** – TypeScript, React.js, Vite, Cloudflare Workers, Prisma, Zod, Aiven DB

- Deployed a full-stack blogging platform that allows users to create an account and publish posts on the website that can be viewed by other users as well.
- Designed the Frontend using React.js with Tailwind CSS and Flow-bite components for styling and design consistency.
- Developed a backend system utilizing the Hono web framework and Cloudflare Workers to streamline serverless functions, achieving an average response time of under 200 milliseconds for user requests. Implemented **JWT token validation** for secure user authentication and session management.
- Integrated Aiven DB and Prisma Accelerate to host a robust PostgreSQL database, designed and managed **efficient NoSQL schemas** using that improved data storage efficiency by decreasing loading times to 50 milliseconds.

## Courses

- **Deep Learning & CNNs from Scalar Academy** / Python, TensorFlow, Keras, CNN
- **100xDevs Cohort 2.0** / HTML, CSS, JavaScript, React.js, Databases, Docker