Kajol Murmu

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Education

Siksha 'O' Anusandhan (ITER) **Nov 2021 – June 2025**
Bachelor of Technology in Computer Science Engineering Bhubaneswar, India

- **CGPA:** 9.03/10
- **Coursework:** Data Structures and Algorithms, Computer Network, Database Management, Machine Learning

Jawahar Navodaya Vidyalaya (East Singhbhum) **2021**
Senior Secondary Education (Secured 84.8%) Balikudia, India

Jawahar Navodaya Vidyalaya (East Singhbhum) **2019**
Secondary Education (Secured 90.1%) Balikudia, India

Experience

Epam Systems **Jan 2025 – June 2025**
Software Engineer Intern *Hyderabad, India*

- Developed registration, login, and user profile features for a web application using **JavaScript (ES6+)**, **TypeScript**, **React**, **Node.js**, **MongoDB**, and **RESTful APIs**.
- Built and tested backend APIs and frontend UI components with **Jest** and **React Testing Library (RTL)**, ensuring high code quality and reliability.
- Applied **Agile Scrum** methodologies for iterative development and team collaboration.
- Gained hands-on experience with **AWS** for deploying and managing cloud-based applications.

Projects

Underwater Image Enhancement Using Lightweight CNN | *Python, TensorFlow/Keras, Google Colab* | Link **Jan 2025 – Jun 2025**

- Developed a novel lightweight CNN architecture with only five convolutional layers to enhance underwater images, improving visibility with minimal computational cost.
- Implemented the solution in Python using **TensorFlow** and **Keras**, optimized for real-time performance on edge devices.
- Utilized **Adam optimizer**, **scikit-learn**, **NumPy**, and **Matplotlib** for training, evaluation, and visualization.
- Documented outcomes with quantifiable metrics (**UCIQE**, **NIQE**) and benchmarked performance against state-of-the-art approaches.

Podcast Summarizer | *React, TypeScript, Node.js*| Link **June 2025–Aug 2025**

- Developed a full-stack web application to extract, transcribe, and summarize podcast episodes.
- Utilized **AssemblyAI API** for transcription and **Google Gemini API** for generating AI-powered summaries.
- Built a responsive frontend using **React** and **TypeScript**, and a scalable backend using **Node.js**, **Express**, and **MongoDB**.
- Deployed frontend to **AWS S3** and **AWS Cloudfront** and backend to **Render.com** for cloud hosting.

Technologies

Languages: Java, Python, HTML, CSS, JavaScript, TypeScript

Libraries & Frameworks: React, Tailwind CSS, Express.js, Bootstrap

Technologies: AWS, MongoDB, Git, RESTful APIs