Kajol Murmu

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Summary

Full-Stack Developer skilled in **React, TypeScript, Next.js, Tailwind CSS, and RESTful APIs**. Experienced in building scalable web applications and integrating **Generative AI**, including a Podcast Summarizer project. Passionate about clean code and user-centric design.

Education

Siksha 'O' Anusandhan (ITER) — Bhubaneswar, India
Bachelor of Technology in Computer Science Engineering (Secured CGPA: 9.03/10) — *Nov 2021– June 2025*

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

Experience

Software Engineer Intern — Jan 2025– June 2025
Epam Systems — *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

Podcast Summarizer | *React, TypeScript, Node.js, RESTful APIs, Gen AI*—Link

- 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 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.

Portfolio Website | *Typescript, Next.js, Tailwinl CSS, React Bits*—Link

- Built a full-stack web application using **Next.js** (React framework) with server-side rendering (SSR) and API routes for efficient data handling.
- Utilized **Tailwind CSS** for responsive, scalable UI components, ensuring seamless user experience across devices.
- Used React libraries such as React Bits.

Underwater Image Enhancement Using CNN | *Python,Tensorflow/Keras,Scikit image, Matplotlib, Numpy*—Link

- Developed a novel lightweight CNN architecture with only five convolutional layers to enhance underwater images, improving visibility with minimal computational cost.
- Implemented 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.

Technical Skills

Languages: Java, Python, SQL , JavaScript, HTML/CSS
Frameworks: React, React Router, Redux, Next.js, Node.js, Express.js, Material-UI, RESTful APIs, TailwindCSS
Developer Tools: Git, AWS, VS Code, Visual Studio, MongoDB

Certification

AWS Knowledge: Serverless Architecture —Link