

Roshan Mohapatra

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Professional Summary

Highly motivated and skilled B.Tech (CSE - AIML) student with hands-on experience in AI/ML model development, backend API design, and full-stack web applications. Proficient in Python, FastAPI, and data science tools, with expertise in RESTful API development, cloud-based databases, and machine learning implementation. Demonstrated ability to build and deploy real-world projects, including cancer detection systems, multilingual transliteration APIs, and voice-enabled healthcare solutions. Eager to contribute to innovative tech teams and grow as a backend or full-stack developer in challenging roles.

Skills

Programming Languages

- Python, Java (Core)

Web Development

- FastAPI, React.js, HTML5, CSS3, Tailwind CSS, CORS

Machine Learning & Data Science

- Scikit-learn, Pandas, NumPy, Matplotlib, Seaborn, Jupyter Notebook

API Development & Backend

- RESTful API Design, JWT Authentication, SQLAlchemy, Pydantic

Cloud & DevOps

- AWS (EC2, S3, Lambda – beginner level), Supabase, Git, GitHub, Postman

Databases

- PostgreSQL, Supabase DB, Oracle

Libraries & Tools

- SpeechRecognition, pytsx3, spaCy, OpenCV, PyPDF2, Docker, Figma, Canva
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Experience

Backend Developer Intern

NextTech | Bhubaneswar, Odisha | Feb 2025 – Present

- Developing REST APIs for a lyrics application using FastAPI and Supabase.
- Implemented JWT-based authentication and role-based access control.
- Collaborated with the team on backend design, testing, and deployment.

ML Research Intern

BADAL Institute of Life Sciences (ILS) | Bhubaneswar, Odisha | Dec 2024 – Feb 2025

- Developed ML models for multi-class cancer detection using gene expression data and radiological images.
- Built FastAPI backend with JWT authentication and Supabase integration.

- Collaborated with researchers for data preprocessing, model training, and API deployment.

Projects

Online Cancer Detection System

- Machine learning-based multi-class cancer classification system using gene expression data and radiological images.
- Trained and evaluated models using Logistic Regression, SVM, and Random Forest.
- Built REST APIs with FastAPI, JWT authentication, and Supabase PostgreSQL integration.

Lyrics Management Web App

- Full-stack lyrics platform enabling upload, search, and management of multilingual lyrics.
- Designed and implemented backend in FastAPI with Supabase PostgreSQL database.
- Developed secure user login and admin access with JWT-based authentication.

Voice-Assisted Healthcare Kiosk

- Designed a voice-enabled healthcare kiosk prototype for elderly and visually impaired users.
- Implemented speech-to-text and text-to-speech features using Python libraries.
- Planned backend integration with KIIMS hospital API (prototype stage).

Indian Language Transliteration API

- API service for transliterating text between multiple Indian languages.
- Created FastAPI endpoints with Pydantic schema validation and error handling.

Resume Parser API

- API service to extract structured data from uploaded resumes (PDF/DOCX).
- Used pdfminer, docx, and spaCy for file reading and NLP-based entity extraction.

Expense Tracker API

- Backend service for managing personal expenses and income with summaries and categorization.
- Implemented CRUD APIs using FastAPI and PostgreSQL with JWT-based authentication.

AI Career Suggestion Bot

- ML-based bot that suggests career options based on user-input skills and interests.
 - Built with FastAPI and rule-based/ML logic for recommendations.
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Education

GITA Autonomous College

Bachelor of Technology in Computer Science and Engineering (AIML) | 2022 – Present

- Secured an average of 85% in 3 years.

Kendrapara Public School

Higher Secondary School (12th) | 2020 – 2022

- Secured 85%.

Kendrapara Public School

Secondary School (10th) | 2020

- Secured 83%.

Certifications

- Machine Learning – Andrew Ng (Coursera)
 - REST API Development (FreeCodeCamp)
 - AI for Everyone (Coursera)
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Objective

Seeking a challenging role as a Backend Developer or Full-Stack Developer to leverage my skills in API development, machine learning, and cloud-based technologies. Eager to contribute to innovative projects and grow within a dynamic tech team.

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