

SOURAV PATI

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🎓 EDUCATION

Institute of Technical Education and Research (ITER), Bhubaneswar 2023 – Present

B.Tech in Computer Science and Engineering(CSE), expected in July 2027

current CGPA: 9.48 / 10

Modern Public School, Balasore

2011 – 2023

Higher Secondary Education (Class XII – Science), percentile: 92.20

Matriculation (Class X), percentile: 91.60

👥 PROJECTS

OncoShield – Non-Invasive Tumor Detection System

2024

Python, IoT, scikit-learn, TensorFlow, React, Express Individual Project

Developed a novel ML-based tumor detecting system combining IoT and AI.

- Built an IoT prototype to collect physiological data (e.g., impedance, temperature).
- Developed a machine learning model to predict tumor presence with high accuracy.
- Integrated data acquisition and analysis into a seamless, predictive pipeline.

CropScan IR – Smart Crop Monitoring System

2024

Python, IoT, ML, Infrared Imaging, React, Express Individual Project

Designed a precision agriculture system for monitoring crop health.

- Used infrared sensors to collect multi-spectral crop data for real-time analysis.
- Applied statistical modeling and ML to detect pests, diseases, and crop stress.
- Enabled data-driven agricultural decision-making via intelligent insights.

Other Mini Projects

2023–2024

React, Express, HTML, CSS, JavaScript, APIs, Python, Java, Gradle For developing skills

- **Medical Diagnosis Chatbot** – A symptom-based diagnosis chatbot using python and OpenAI API.
- **Sudoku Solver App** – A web app to generate and solve Sudoku puzzles with grid-based logic.
- **sourav-math-lib** - A Java library built using Gradle providing advanced mathematical tools.

⚙️ SKILLS

- **Languages:** Java, Python, JavaScript, C, C++
- **Web Dev:** React.js, Node.js, Next.js, Express.js, HTML, CSS, Bootstrap, JQuery, REST APIs
- **AI/ML:** scikit-learn, TensorFlow, PyTorch, Pandas, NumPy, Matplotlib, GPT tools
- **Databases & Tools:** MongoDB, MySQL, Git, VS Code, Jupyter, PyCharm
- **Other:** Full Stack Dev, IoT Integration, Linux, Competitive Programming

❤️ TECHNICAL ACTIVITIES

- **HackNation – Nirman 4.0 (Feb 2025):** Developed a ML model for “AngioSense” a non-invasive alternative to angiography based on PPG + bio-impedance data.
- **Founder’s Arena – ITER (Mar 2025):** Pitched “OncoShield” in an innovation challenge.
- **D3Fest CodeOlympics – IIIT BBSR (Nov 2024):** Competed in DSA-based coding rounds with many other strong competitors under time pressure.
- Contributed to open-source projects and participated in GitHub-based collaboration events.
- Regularly solve coding problems on LeetCode and Codeforces to refine DSA skills.