

# Rajdeep Pal

Full-Stack Developer — Software Engineer — AI Enthusiast — Passionate about Tech Innovation

✉ rajdeppalofficial@gmail.com ☎ +91 8250451450 🌐 rajdeppal.me

🐙 github in linkedin

## Education

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### B.Sc. (Hons.) in Computer Science

Ramakrishna Mission Vivekananda Centenary College  
Kolkata, West Bengal, India

CGPA: **9.29 (ongoing)**

*Aug 2023 – Present*

### Higher Secondary (Class XII)

Bishnupur Rasamanjari High School, WBCHSE  
Birbhum, West Bengal, India

Percentage: **88.6%**

*2021 – 2023*

### Secondary (Class X)

Purapara High School, WBBSE  
Murshidabad, West Bengal, India

Percentage: **92.42%**

*Up to 2021*

## Professional Experience

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### SRFP Intern – Indian Academy of Sciences at IIT Ropar

*May 2025 – July 2025*

Worked under Prof. Navin Kumar on a research project in **Image Processing and Machine Learning**, as part of the prestigious Summer Research Fellowship Program conducted by IAS, INSA and NASI.

## Hackathons and Competitions

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### Hack The Block – IIT Dhanbad

*Oct 2024*

Secured the 5<sup>th</sup> position — Led a team to build the Blockchain Token System

### SnapSyntax – Jadavpur University

*Apr 2025*

1<sup>st</sup> Position — Led Team Incognito in a timed HTML/CSS web design challenge

### Tech Triad Hackathon – IIT Kharagpur (KSHITIJ 2025)

*Jan 2025*

Finalist — Revamped Workwise website with enhanced security and AI-based encryption

### Web Hackathon – IIT Bhubaneswar (PRAVAAH 2025)

*Apr 2025*

Finalist — Built an AI-based E-Learning Platform with DDoS protection and analytics

### The Turing Show – RKMVERI

*Jan 2025*

Secured 7<sup>th</sup> position — Competitive Coding and Problem Solving

### UI/UX Internship Prelims – Rahul Sir

*Nov 2024*

Finalist — UI/UX design mock-ups using Figma and Canva

## Projects

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### College Tech Fest Website 🐙 🌐

Developed a full-stack, mobile-responsive website for managing event registrations, schedules, and announcements for the annual college tech fest. Improved accessibility and engagement through interactive UI using React.js, Node.js, and MongoDB.

### Java base Own programming language Compiler 🐙

Currently developing a custom compiler for a Java-based programming language. Building core components including lexical analysis, parsing, and code generation. The project explores in depth the principles of language design and compiler architecture.

### GrayMatter Coding Platform – NEUROVERSE 3.0 🚀🚀

Engineered a real-time coding challenge platform for our flagship tech fest event. Integrated live leaderboard updates and problem submission modules using Express.js and WebSockets, significantly boosting participant engagement.

### Spotify UI Clone 🚀🚀

Recreated Spotify's frontend interface using ReactJS and Tailwind CSS. Optimized layout and loading speed, resulting in a 25% increase in user interaction during testing phases.

### WorkWise Project Revamp 🚀🚀

This was a fully functional MERN stack project developed as part of a hackathon at IIT Kharagpur. Due to certain constraints, the backend services have been shut down and the free MongoDB database has expired.

### To-Do TXT Manager 🚀

Built a task management tool using Node.js, EJS templating, and Tailwind CSS. Utilized file system-based data storage for lightweight, offline-compatible usage.

### Diabetes Prediction Model 🚀

Implemented a machine learning model in Python using Pandas and TensorFlow to predict diabetes based on patient data. Evaluated model accuracy with confusion matrix and classification metrics.

### Identification Model 🚀🚀

I've successfully built a Deep Learning project using Python and PyTorch that classifies images of Dogs and Cats with an impressive accuracy of 91.22

### Blockchain Token System 🚀

Designed and implemented a Java-based blockchain token system prototype showcasing secure token generation, validation, and transaction flow. Built as part of the Hack The Block project to demonstrate core blockchain principles.

### Flappy Bird Game (Java) 🚀

Designed and optimized a Flappy Bird clone in Java with smoother gameplay mechanics. Achieved 40% faster load time compared to baseline implementation.

### UI/UX Design Projects 📄

Created visually engaging brochures and a tech fest landing page using Figma, Canva, and Photoshop. Focused on clean, intuitive layouts to support accessibility and branding goals.

## Key Achievements

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- Selected for SRFP Internship at IIT Ropar on Image Processing & ML.
- Secured 1<sup>st</sup> position at SnapSyntax, a timed web design challenge held at Jadavpur University.
- Created a full-stack tech fest website that improved interaction and visibility.
- Built a real-time coding platform for GrayMatter at NEUROVERSE 3.0 with live leaderboard.
- Finalist in national-level hackathons at IIT KGP, IIT Dhanbad and IIT Bhubaneswar.

## Technical Skills

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#### Languages:

Java, Python, C, C++, R

#### Web Development:

HTML, CSS, JavaScript, ReactJS, Tailwind CSS, Node.js, Express.js, PHP

#### Databases:

MongoDB, MySQL

#### App Development:

XML, React Native, Kotlin

**Libraries & Tools:**

Pandas, NumPy, Pytorch, TensorFlow, Matplotlib, Git, VS Code, Figma, Canva

**AI/ML:**

Python, Pandas, TensorFlow, Pytorch, Google Colab, Jupyter

**Other:**

UI/UX Design, Project Management, Prompt Engineering, Dev Tools (IntelliJ, PyCharm, RStudio, etc.)

## Languages

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Bengali (Native), English (Fluent), Hindi (Fluent).

## Extra Curricular Activities

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Creative arts enthusiast – drawing, singing, story writing.

Experience in cinematography, video editing, and short film direction.

Strong interpersonal, communication, time management, and leadership skills.