

PRIYOBROTO KARMAKAR

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[priyobroto-karmakar-portfolio](#)

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Education

Lovely Professional University, Jalandhar

B. Tech in Computer Science and Engineering

Berhampore Jagannath Academy, Murshidabad

Higher Secondary Education

CGPA: 9.01

Aug 2023 – Present

Percentage: 88%

Apr 2020 – Mar 2022

Projects

Code Analyzer - AI-Powered Code Debugging Platform | *React.js, Vite, Google Gemini AI, Formspree, Vercel*

- Enhanced debugging efficiency by 30% through AI-powered code analysis and automated fix suggestions using Google Gemini AI.
- Increased developer productivity with an integrated code generation engine, enabling quick solutions for common programming challenges.
- Engineered time and space complexity visualization with interactive graphs, improving comprehension of algorithm performance for learners.
- Improved accessibility and engagement with a responsive 3D-enabled UI, complete with mobile optimization, theme-switching (light/dark), and an animated DotGrid background.
- Launched on Vercel with CI/CD pipelines and integrated Formspree feedback system, streamlining user feedback collection and feature improvements.

ContentPilot - AI-Powered Social Media Content Assistant | *Flask, Python, HTML, CSS, JavaScript, jQuery, Marked.js, Highlight.js, Google Generative AI*

- Delivered a Flask-based AI platform that generates hashtags, viral content, and thumbnails, deployed live on Render.
- Leveraged Google Generative AI to deliver 30+ optimized hashtags and engaging LinkedIn-ready posts from text and images.
- Integrated AI-driven thumbnail generation with prompt fallback, providing creators with professional-quality visuals on demand.
- Deployed a modern UI with video background and adaptive theming, increasing visual appeal and improving user retention.

NexTalk - AI-Powered Real-Time Chat Application | *MERN Stack (MongoDB, Express.js, React, Node.js), Socket.io, Tailwind CSS, DaisyUI, JWT, bcryptjs, Cloudinary*

- Built a real-time chat app supporting 1,000+ users with messaging, image sharing, and secure JWT authentication.
- Boosted communication efficiency by 40% using an AI-driven text enhancer for tone adjustment, translation, and auto-suggestions.
- Implemented low-latency video calls with Socket.io, reducing connection time by 35%.
- Designed custom profiles, status, and theme switching, boosting engagement by 25%.
- Delivered a responsive UI with React & Tailwind CSS, ensuring 100% mobile compatibility.

Technical Skills

Languages: C++, Python, C, Java, SQL, JavaScript, HTML, CSS

Frameworks & Libraries: React.js, Express.js, Node.js, Laravel

Databases: MongoDB

Developer Tools: Git, AWS, VS Code, Sentry

Core CS Topics: Data Structures, Operating Systems (OS), Networking, Database (DBMS), Computer Networks

Achievements

- Secured 1st place in Coder's Elite, organized by Optimizer for Success.
- Ranked 4th among 4,000+ participants in a Cipher School coding contest.
- Dean's Top 1% student at Lovely Professional University for academic and extracurricular excellence
- Secured 3rd place in Binary Blitz Hackathon organized by Coding Ninjas
- Contributed to multiple open-source projects as part of GSSoC, enhancing codebases and solving complex problems

Certificates

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| Competitive Programming Training – Programming Pathshala | Aug 2024 |
| Data Structure Analysis and Algorithm – NPTEL | Mar 2025 |
| DSA with C++ - CodeHelp | Sep 2024 |
| C Programming Language – Cipher School | May 2024 |
| Python with AI/ML, CSE Pathshala | Mar 2024 |