

Pritam

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Education

Deenbandhu Chhotu Ram University of Science and Technology

Bachelor of Technology in Electronics & Communication Engineering; CGPA: 8.43/10

2023 - Present

Sonapat, Haryana

CBSE - 12

Mathematics - Grade: 96.2%

2022

New Delhi

Experience

Embedded Application Developer (Intern)

Jul 2025 – Present

PCB CUPID, Bangalore

Remote

- Engineered production-grade IoT applications in C/C++ on Glyph boards (C2, C6, H2) for high-precision industrial control systems.
- Developed and optimized microcontroller firmware with multi-sensor integration for complex automation tasks, improving system responsiveness.
- Developed CLI tool converting KiCad SVG files to PCB visualizations precision coordinate mapping, reducing manual time by 60%

Robotics Engineering Team Member and Mentor

Oct 2023 – Present

THINKBOTS Robotics Club, DCRUST

Murthal, Haryana

- Architected and built autonomous line-following robots using Arduino, achieving 95% path accuracy on complex competition tracks.
- Led and mentored a team of 15+ junior developers, teaching best practices in embedded systems, PID control, and algorithm design.

Projects

XTorr - Multi-Threaded BitTorrent Client | *Java, Networking, Concurrency*

Dec 2024

- Built complete BitTorrent client with multi-threaded architecture, handling 50+ concurrent peer connections with TCP/IP sockets
- Achieved 300% download performance improvement using thread pools and synchronized data structures for parallel file piece fetching

Forge - PCB Design Visualization CLI | *Python, SVG Processing*

Aug 2025

- Created CLI tool converting KiCad SVG files to PCB visualizations precision coordinate mapping
- Automated PCB design workflow with modular SVG processing, reducing manual design time by 60%

Autonomous Line Following Robot | *Arduino Nano, C++, PID Control*

Mar 2025

- Built robot with 8-IR sensor array and custom PID control, achieving 98% path accuracy on complex tracks
- Reduced sensor false positives by 85% through digital filtering and adaptive thresholding algorithms

Dobosaurus - Interactive Game | *Java, Swing GUI*

Nov 2024

- Developed arcade platformer game, implementing collision detection and real-time scoring at 60+ FPS
- Designed scalable OOP architecture with MVC pattern for maintainable game logic and rendering systems

Technical Skills

Programming Languages: C/C++, Python, Java, SQL, VHDL

Technologies & Frameworks: Spring Boot, Java Swing, AWT, OpenCV, REST APIs, Multithreading

Machine Learning: Linear Regression, Logistic Regression, Random Forest, Scikit-learn

Tools & Platforms: Git, GitHub, Linux, IntelliJ IDEA, VS Code, Vim

Specializations: Artificial Intelligence, Machine Learning, Robotics, Embedded Systems, PCB Design

Achievements & Recognition

Smart India Hackathon - National Level Competition — *Team Leader & Software Developer*

2024

- Led team developing AI-powered Face Recognition System for Missing Persons tracking at Simhastha Ujjain for Police Department