

# SUDEEP J

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Portfolio: [Sudeep J — Portfolio](#)

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## EDUCATION

- **New Horizon College of Engineering** 8.30 CGPA  
B.E-Electrical and Electronics Engineering (2022-2026)
- **St. Francis Institution** (Bangalore) 85.22%  
PCMC- 12th.

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## TECHNICAL SKILLS

- **Programming:** Java, Python, OOPs and DSA.
- **Networking & Databases:** MySQL, Computer Networking Concepts, DBMS.
- **Soft Skills:** Problem Solving, Leadership, Teamwork, Communication, Logical Thinking

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## PROJECTS

### SMART COLLISION DETECTOR FOR DRIVERLESS VEHICLES

- Developed an Arduino-based collision detection system to enhance the safety of driverless vehicles. Used ultrasonic sensors to continuously scan for nearby obstacles and trigger real-time alerts to prevent collisions. Focused on accurate sensor calibration, fast data processing, and reliable obstacle detection.
- Designed the project to be easily scalable and adaptable for future improvements in autonomous vehicle technology, reduce obstacle detection delay to under 0.1 seconds, ensuring real-time responsiveness in critical situations.

### DESIGN AND SIMULATION OF A HIGH-SPEED AI ACCELERATOR CORE USING DOMINO LOGIC

- This project proposes the design of a MAC unit using Domino logic, which is significant speed over traditional CMOS logic. The aim is to enable AI processing for edge and embedded applications with improved efficiency.
- **APPLICATION:** Used in hardware like Google TPU and NVIDIA Tensor Cores for fast and energy-efficient neural network processing.

### DIGITAL EXPENSE MONITORING SYSTEM

- Currently developing a web-based Expense Tracker system to help users record, categorize, and monitor daily spending through an intuitive interface. Implementing backend logic for secure data storage, automated calculations, and real-time analytics such as monthly and category-wise reports.
- Designing a structured database with plans for secure login, user profiles, and budgeting information, along with notifications for budget limits and monthly summaries. Aiming to deliver a complete end-to-end solution that enhances personal financial management with accurate insights and strong security.

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## CERTIFICATIONS

- Solved Java 500+ problems - [Code Chef](#).
- Data Science Foundation – [IBM](#).
- Operating Systems basic – [Cisco](#)
- SQL Foundation Course – [Hacker Rank](#)

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## LEADERSHIP & INITIATIVES

- **Published Patent:** “*Ventilated Smart Techno Shoe for Trekking*” Designed a smart trekking shoe with integrated sensors to monitor steps, terrain, and environmental conditions.
- **Secretary, Robohorizon Club:** Organized AI and robotics-based workshops and competitions (Velocity Rush State level - event