

RIKIN PAREKH

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PROFILE

Proficient in Python, C, and embedded systems with expertise in Arduino and Raspberry Pi. Passionate about robotics, IoT, and AI, with hands-on experience in developing automation solutions, embedded systems, and smart devices.

EDUCATION

Bachelor of Technology in Information and Communication Technology,
Pandit Deendayal Energy University

Expected 2027

- **CGPA:** 9.06/10.0
- **Coursework:** Digital Logic Design, Signal Processing, Data Structures and Algorithm, Discrete Mathematical Structure, Java, C Programming, Python

HSC - 12th Grade, Best Higher Secondary School

2023

SKILLS

Programming Languages	Python, C, MATLAB, Embedded C, SQL
Microcontrollers and Platforms	Arduino, ESP32, Raspberry Pi
Frameworks and Tools	Django, Git, Linux

PROJECTS

Underwater ROV

2024

Designed and developed a **remotely operated underwater vehicle** for structural analysis of submerged infrastructure. Integrated BLDC motors with Raspberry Pi for precise maneuverability and real-time control. Led a team of four through ideation, prototyping, and testing, **securing ₹50,000 in funding** for further development.

Robotic Process Automation

2024

Developed an **RPA** solution at the **Datamatics Hackathon** to automate repetitive business processes, enhancing efficiency and accuracy. Designed and implemented a bot using Python and Datamatics automation frameworks to streamline data extraction, processing, and reporting. Optimized workflow automation, reducing manual effort and improving operational speed. Successfully reached the finals at **IIT Bombay**, showcasing the solution's impact and scalability in real-world applications.

Smart Mirror

2023

Developed a smart mirror that displays **daily routines**, Google Calendar events, and New York Times news, while also allowing Spotify control and **integration with smart assistants** like Google Assistant or Alexa. Powered by a **Raspberry Pi**, it uses a **two-way film** on the surface, enabling it to function as both a display and a regular mirror, creating an interactive and functional addition to any smart home.

Indian AI Product Finder

2021

Created an Indian AI product finder during Intel AI bootcamp, where I learned about **natural language processing**. Using a dataset of Indian products from Amazon sourced from Kaggle, the **AI analyzes** customer descriptions to find equivalent local versions, making it easier for users to discover Indian alternatives to their desired products.

ACHIEVEMENTS

- **Two Time Finalist - Datamatics Hackathon, IIT Bombay (2023,2024)**
Developed an RPA solution to automate business processes, enhancing efficiency and accuracy.
- **Winner - Round 1, Robofest (Underwater ROV Category)**
Led a team in designing and prototyping a remotely operated underwater vehicle for structural analysis of submerged infrastructure. Secured ₹50,000 in funding.
- **Top 15 (Regional) - NASA Space Apps Challenge & Datamatics Hackathon**
Competed in high-level hackathons, showcasing innovative problem-solving and technical expertise.
- **Exhibitor - National Children's Science Congress (NCSC) & Tarang Fest**
Presented smart mirror and IoT-based projects representing Atal Tinkering Lab.

CO-CURRICULAR EXPERIENCE

- **Cretus Robotics Club - Active Member**
Engaged in hands-on robotics workshops, hackathons, and technical competitions, expanding expertise in embedded systems, automation, and AI.
- **Intel AI Bootcamp - Participant**
Developed an AI-based Indian product finder for Amazon, leveraging machine learning techniques to enhance search optimization.
- **Atal Tinkering Lab - Mentor & Workshop Conductor**
Supervised and organized STEM workshops for students, promoting innovation in robotics and IoT.
- **Civic & Social Services Internship (CSSI) - Volunteer**
Assisted visually impaired individuals at Navjyot Andhjan Mandal, contributing to accessibility and inclusive technology initiatives.

COURSES

- **Harvard CS50: Introduction To AI (Ongoing)** - Covers fundamental AI concepts, machine learning, and neural networks
- **Harvard CS50: Web Development with Django (2022)** - Learned backend development using Django, SQL, and REST APIs.
- **Intel AI Bootcamp (2021)** - Focused on NLP, trained an AI-based Indian product finder using Amazon product datasets.