Riddhi Attarde

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Education

Maharashtra Institute of Technology Pune, India

Bachelor of Technology, Electrical and Computer (Meta Association of Study Skills Head) Aug 2023 – Jul 2027

- **Coursework:** Power Systems and Protection, Electrical Machines, Microcontroller Applications, Control Systems, Discrete Mathematics and Statistical Methods, Data Structures & Algorithms (Linear & Non- Linear), Microprocessors, Analog & Digital Electronics, Programming and Problem Solving, Communication Networks, Power Electronics, Database Management Systems

IIT Madras

Diploma in Programming, Diploma in Data Analytics September 2027

- **Coursework:** Programming, Data Structures and Algorithms, Database Management Systems, Java Programming, Operating Systems, Web Application Development, Applications of Machine Learning, Deep Learning, Artificial Intelligence, Data Mining, Big Data Tools, Ethics in Data Science,

EXPERIENCE

IEEE Student Branch (Secretary)

- Organized Pune's IEEE Student Congress, successfully coordinating participation from 22 student chapters.
- Helped to lead workshops on dobot magician and pcb design, providing practical learning opportunities.

Society of Women Engineers (Global Ambassador, SWE Scholar & Student Chapter Vice President)

- Helped conduct technical workshops on embedded systems, IoT, and PCB design with hands-on technical skills.
- Collaborated on research-driven projects and tech initiatives, increasing female participation in STEM research by 30% through mentorship and resources.

PROJECTS

Self-Calibrating Drone with FS-i6 Transmitter and Camera Module

- Built a drone using FS-i6 transmitter and FS-iA6B receiver for reliable control.
- Implemented self-calibration for gyro and ESCs to enhance flight stability.
- Integrated a camera module for live video feed and FPV capability.
- Achieved up to 5 hours of flight time with optimized power management.

Rubber Ducky Replica Using Digispark HW-018

- Programmed Digispark HW-018 as a HID device to execute automated cyber attacks.
- Developed payloads for tasks like credential theft, file exfiltration, and system crashes.
- Designed the system with obfuscation techniques to bypass basic security measures.
- Implemented I2C communication for real-time angular velocity data collection.

PCB Design for Electronic Voting Machine

- Designed a custom PCB for an electronic voting machine, integrating components like microcontrollers, switches, and display units for seamless voter interaction.

Line Following Robot with Custom IR Sensors

- Designed and built a line-following robot using custom-built IR sensors with analog and digital ICs (LM358 Op-Amp, 555 Timer, L293D Motor Driver) and compared its performance to commercial IR sensors.
- Integrated efficient motor control and signal processing circuits for accurate path tracking and improved obstacle detection.

SKILLS & INTERESTS

- **Technical Tools:** MATLAB, Simulink, Multisim, KiCad, AutoCAD Electrical, Arduino IDE, Raspberry Pi, LabVIEW, LTspice, Proteus, Altium Designer, VSCode, Git.
- **Skills:** C/C++, Embedded C, I2C, SPI, UART, LabVIEW, Python, Verilog, VHDL, Embedded Systems, PCB Design, Circuit Analysis, Power Electronics, Control Systems, Signal Processing, IoT Development, Microcontroller Programming, Market Research.