MIT | Academy of Engineering
(An Autonomous Institute Affiliated to Savitribai Phule Pune University)

MAHAJAN NACHIKET PRAVIN

B.Tech. - Electronics Engineering

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Pune, Maharashtra, India - 411062

EDUCATION

MIT Academy of Engineering, Pune 2023 - 2027
B.Tech. - Electronics Engineering | CGPA: **9.01** / **10**

D.Y. Patil 2023
12th | HSC | Percentage: **73.83** / **100**

D.Y. Patil English Medium School 2021
10th | SSC | Percentage: **84.20** / **100**

PROFESSIONAL EXPERIENCE

Inthink Technologies | Technology | Research & Development 04 Jun, 2025 - Present

R&D Engineer (Intern)
Working as an R&D Engineer Intern at Inthink Technologies, focusing on STM32-based embedded systems and machine learning projects in healthcare and agriculture. Involved in hardware design, sensor integration, and intelligent system development for real-world applications.

Zumax Innovation, Pune | Automation & Software Development 12 Aug, 2024 - 28 Jan, 2025

Data Automation Intern
Created a Python program to automate material data processing for a steel company and eliminated manual entry by adding automated data extraction, timestamping, and structured reporting, also enhanced efficiency and accuracy in data handling using Python, Pandas, and CSV automation.

PROJECTS

STM32-Based TV Remote

Key Skills: Embedded Systems | STM32 | IR Communication | I2C Interface

Developed an STM32-based embedded system simulating a TV remote with channel, volume, mute, and power controls. Integrated an IR receiver for signal decoding, 7-segment display, I2C LCD, buzzer, and relay using STM32CubeIDE.

Periodic Noise Removal from Images Using Frequency Domain Filtering (MATLAB)

Key Skills: MATLAB | Image Processing | Frequency Domain Analysis | Fourier Transform | Noise Filtering

Implemented a MATLAB-based algorithm to remove periodic noise from grayscale images using Fourier transform and frequency masking.

Graphene-Based Wideband THz Antenna Design (HFSS)Graphene-Based Wideband THz Antenna Design (HFSS)

Key Skills: HFSS Simulation | Antenna Design | Electromagnetic Analysis

Designed and simulated a graphene-based E-shaped patch antenna with a defected T-shaped ground on Rogers RT/Duroid 6010 substrate (0.57–1.02 THz) using ANSYS HFSS. Analyzed return loss (S11), VSWR, and radiation characteristics for high-speed and medical sensing applications.

Hand Gesture Controlled Robotic Arm using Raspberry Pi

Key Skills: Embedded Systems | Raspberry Pi | Python | ML | Robotics

Developed a multi–DOF robotic arm controlled through real-time hand gestures, integrating embedded systems and machine learning for gesture recognition. Deployed the system on Raspberry Pi, interfacing servos for smooth and precise motion control.

Schizophrenia Detection using Machine Learning

Key Skills: Python | Machine Learning | EEG | Healthcare

Working on a healthcare-oriented project that applies machine learning to EEG signal data for early detection of schizophrenia. Implemented data preprocessing, feature extraction, and classification models to identify neural abnormalities supporting mental health diagnostics.

ASSESSMENTS / CERTIFICATIONS

Python Programming
Learned Python fundamentals, libraries, and automation concepts through practical projects and exercises.

Python Essentials
Covered core programming concepts, functions, and data structures in Python, aligned with industry standards.

PERSONAL DETAILS

Gender: Male
Marital Status: Single
Current Address: Sr no. 1355 Sahyadri HSG. Soc. Anganwadi road morewasti chikhali, Pune, Maharashtra, India - 411062
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Date of Birth: 16 Nov, 2005
Known Languages: English, Hindi, Marathi
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