

ABINESH MUTHU A

Tirunelveli, Tamil Nadu – 627105 | abineshmuthua@gmail.com | +91 7094312695 | [LinkedIn/Abinesh Muthu A](#)

CAREER OBJECTIVE

Aspiring Mechanical Engineer student with a strong foundation in Machine Learning, Python development, research, and problem-solving. Passionate about applying Machine Learning to real-world challenges and contributing to technology-driven innovation.

EDUCATION

B.E. Mechanical Engineering – Amrita College of Engineering and Technology, Nagercoil | CGPA: 7.5 | 2022–2026

Full Stack Development Program (Ongoing) – NxtWave's CCBP 4.0 Academy

HSC – Balakrishna Matriculation Hr. Sec. School, Vadakkankulam | 53%

SSLC – Balakrishna Matriculation Hr. Sec. School, Vadakkankulam | 85%

SKILLS

Programming & Development: Python, JavaScript, HTML, CSS, SQL/MySQL, Git & GitHub

Frameworks & Tools: Bootstrap, Figma, VS Code, Google Colab, CATIA V5, SolidWorks, AutoCAD

Core Competencies: Research & Development, Machine Learning, Front-End Development, UI/UX Design, Problem Solving

PROJECTS

- Generative AI Chatbot – Built an interactive chatbot using OpenAI, Hugging Face integration.
- Podcast Generator (Speech Synthesis) – Developed an AI-powered text-to-speech application that generates podcasts automatically.
- Machine Learning for Alloy Optimization (Cu-Al-Mn SMA) – Applied ML models (SVM, Decision Tree, Random Forest, XGBoost) to predict martensite start temperature (Ms), aiding data-driven alloy design.
- Starch-Based Bioplastic Research – Conducted R&D on eco-friendly bioplastics focusing on sustainable formulations and applications.

INTERNSHIPS

UI/UX Design Intern – Zidio Development | Remote | Aug–Sep 2024

- Designed user interfaces and improved design workflows.

Web Development Intern – AK Infopark | Nagercoil | Mar 2024

- Developed responsive front-end features and gained back-end exposure.

CERTIFICATIONS

- Certificate of Excellence in Mechanical Designing (CATIA V5) – CADPOINT (Mar 2025)
- UI/UX Design Training – Zidio Development (Aug–Sep 2024)
- Build Your Own Responsive Website – NxtWave CCBP 4.0 Academy (Nov 2024)
- Introduction to Database – NxtWave CCBP 4.0 Academy (Jun 2025)

ACHIEVEMENTS & PUBLICATIONS

- Awards: Best Student Award (2022–2024),
- 2nd Prize – IoT & AI Hackathon (IBM/Naan Mudhalvan, Nov 2024),
- 1st Prize – National Agri Startup Conclave (Aug 2023),
- Patents: Bio-Degradable Plastic Plantation (App No: 202341069379 A, 2023),
- Gas Stove with Storage Cabin (Design No: 397816-001, 2023),
- Publication: Paper Presentation – 'A Comprehensive Study on Robotics Integration in Manufacturing Systems,' J.S. University (Dec 2023)

LANGUAGES

English | Tamil

DECLARATION

I hereby declare that the above-mentioned details are true and correct to the best of my knowledge and belief.