

# Soujash Banerjee

Computer Science Engineering Student

✉ soujashban@gmail.com · 📞 +91-9831970136 · 🌐 Soujash-123 · 📄 soujash-banerjee

## EDUCATION

**B.Tech in Computer Science and Engineering**  
| *Institute of Engineering and Management*  
(IEM)

Kolkata May 2022 – May 2026

- CGPA: 8.77/10.0

## PROFESSIONAL EXPERIENCE

**Software Development Engineer | IEMA Labs**  
Kolkata January 2024 – Present

- Developed Asset Health Management platform integrating 45+ industrial sensors, reducing machine downtime by 32%
- Optimized ML pipeline, increasing data processing efficiency by 27% and delivering actionable insights

**Machine Learning Research Intern | IIT, KGP**  
Kharagpur May 2024 – June 2024

- Built multimodal threat detection system achieving 93% accuracy while processing 950+ weekly threat samples
- Created advanced filtering techniques that reduced false alerts by 37% for security applications

## PROJECTS

**Quantum Classification Algorithm**

- Developed distance-based classification method using quantum circuits that achieved 98% accuracy on MNIST dataset
- Implemented quantum fidelity measurements and SWAP test operations to calculate similarity between data points

**Podcast Content Generator**

- Created script generation tool that transforms user prompts into structured podcast content with multiple voices
- Built audio pipeline allowing selection of speaker characteristics and conversation dynamics between 2-4 participants

**Audio Threat Detection System**

- Designed audio classification model that identifies specific sound patterns associated with dangerous situations
- Validated performance through rigorous testing with 130 distinct audio samples per category using spectrogram analysis

## PROGRAMMING LANGUAGES

Python (Advanced)	<div><div></div></div>
Java (Intermediate)	<div><div></div></div>
SQL (Intermediate)	<div><div></div></div>
C (Beginner)	<div><div></div></div>
JavaScript (Beginner)	<div><div></div></div>

## TECHNICAL SKILLS

**Web Development:** React, Flask, Django, HTML/CSS

**Machine Learning:** TensorFlow, PyTorch, Scikit-learn, Neural Networks

**Computer Vision & NLP:** OpenCV, NLTK, Transformers

**Development Tools:** Git, Jupyter, Google Colab, VS Code

**Cloud:** AWS (basic), Google Cloud Platform

**Other:** LaTeX, Database Management, Agile Methodology

## LEADERSHIP EXPERIENCES

**Technical Head | IEMMUN 2024**

Kolkata December 2023 – March 2024

- Directed digital infrastructure for 600+ participants, ensuring seamless operations across 8 committee sessions
- Implemented responsive website design that improved registration conversion rates by 42%

**Project Manager | Console Management Consultancy**

Kolkata July 2023 – November 2023

- Supervised 3 cross-functional teams delivering client solutions with 100% on-time completion rate
- Structured project workflows that enhanced client communication and reduced delivery timeline by 20%

**Head of Cultural & Outreach Community | Institute of Engineering and Management**

Kolkata August 2023 – Present

- Coordinated 12+ cultural events reaching 1500+ students while establishing outreach programs for 3 remote villages
- Mobilized 30+ volunteers for community initiatives, increasing participation by 35% compared to previous years

## ACHIEVEMENTS

- TCS CodeVita Season 12** - Ranked 76th globally among 440,000 competitors

Verification: [View Rank Card](#)

- AR Hackathon 2023** - First position in the hackathon organized by IEM's IEEE Community

## CERTIFICATIONS

- Cybersecurity Foundations: Governance, Risk, and Compliance (2023)**
- Responsible AI: Principles and Practical Applications**
- Using AI in Research Projects**
- Basics Of Generative AI**