

# Sharmila Rapeti

📞 +91 8341251461 ✉️ [sharmilarapeti1451@gmail.com](mailto:sharmilarapeti1451@gmail.com) [in sharmilarapeti](https://www.linkedin.com/in/sharmilarapeti) [github sharmila1320](https://github.com/sharmila1320)

## Education

### NIT Silchar

Bachelor of Electronics & Communication Engineering

Expected May 2026

Silchar, Assam

- **Relevant Coursework:** Data Structures and Algorithms (C++) , Prob & Stat, Machine Learning

## Experience

### SN Bose Summer Internship

Summer Research Intern - ML/AI

Jun 2025 – Aug 2025

Silchar, Assam

- **Responsibility:** Enhance underwater image quality for marine datasets using DL frameworks.
- **Challenge:** To build a hybrid CNN-GNN model to optimize results of CNN models.
- **Result:** Built MARLINet pipeline achieving **30% SSIM** and **5.1% PSNR** improvement over baseline on 890 images.
- **Tech Stack:** Python, PyTorch, OpenCV, NumPy, Matplotlib

### SERB CRG

Summer Research Intern - DL

Jun 2025 – Aug 2025

Silchar, Assam

- **Responsibility:** Develop a RIS phase control system for 6G D2D networks.
- **Challenge:** Improved knowledge in **vision-assisted RIS** systems and simulation pipelines.
- **Action:** Built CNN-based predictor achieving **20% accuracy gain**, developed a synthetic scene,label extraction,inference,evaluation workflow.
- **Tech Stack:** Python, PyTorch, NumPy, OpenCV, MATLAB (possible for simulation), custom simulation frameworks

## Projects

**campusGPT** | [GitHub Repo](#) | *Go + Python AI pipelines, RAG, LangChain agents, React.js*

- **Responsibility:**Building an AI-driven campus productivity assistant that automates resume tailoring, assignment extraction, college workflows, and student-facing utilities.
- **Challenge:** Designing multi-agent systems that handle document parsing, intent detection, and workflow automation efficiently.
- **Learning:**Implementing real-time chat interface, Git auto-sync for project folder activity, and AI task automation.

**Quick CV (MERN Stack)** | [GitHub Repo](#) | *MongoDB, Express.js, React.js, Node.js, RapidAPI, JWT Auth*

- **Responsibility:** Designed and developed a full-stack web platform for creating, customizing, and downloading professional resumes.
- **Challenge:** Implemented real-time editing with instant preview, LinkedIn data scraping, and multiple dynamic templates while ensuring secure authentication and storage.
- **Learning:** Enhanced skills in **MERN stack development**, REST API integration, authentication workflows (JWT + cookies), and UI/UX design for productivity tools.

**React.js Chatbot Portfolio** | [GitHub Repo](#) | [Live Demo](#) | *React.js, Tailwind CSS, Vercel, GitHub*

- **Action:** Developed an interactive, responsive chatbot-style portfolio to dynamically showcase projects and skills, deployed on **Vercel**.
- **Challenge:** Engineered a modular chat pipeline using **React hooks/context**, caching mechanisms, and accessibility compliance.
- **Result:** Improved user experience and reduced component rendering overhead by designing reusable UI components and optimized state management.

## Technical Skills

**Coding profiles:** Solved 300+ on [leetcode](#) and [GFG](#).

- Got selected and contributed to open source through [GSSoC 25 Contributor](#).

- Participated in hackathons including SheCodes, Flipkart Grid '24/'25, Walmart Sparkathon, Adobe India, CodeHer.

**Programming Languages:** C++, Python, HTML, CSS, Javascript

**Machine Learning AI:** Pandas, NumPy, Matplotlib, Seaborn, Jupyter Notebook, OpenCV, scikit-learn, PyTorch, Neural Networks, Image Processing, Computer Vision

**Databases & version control:** MySQL, PostgreSQL, MongoDB-Mongoose, Git, Github, Vercel, MERN [SQL Profile](#)

**Core Concepts:** Data Structures & Algorithms (DSA), Object-Oriented Programming (OOP), DBMS