Vaibhav Poddar

Roll No. 240102098
B.Tech - Electronics and Communication Engineering
Indian Institute of Technology Guwahati

+91-9476686665
vaibhav.poddar@iitg.ac.in
vaibhavpoddar1@gmail.com
Github | LinkedIn

Education

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech.	Indian Institute of Technology Guwahati	7.63 (Current)	2024-Present
Senior Secondary	CBSE Board	94.2%	2024
Secondary	CBSE Board	96.7%	2022

Projects

- **Alcheringa Portals** *Aug 2025-Jan 2026*
  Alcheringa, Northeast India's Largest Cultural Fest bit.ly/AlcherWeb | bit.ly/CA_Alcher_Portal
  – Built an interactive landing page for the Main Website using **React.js**, integrating **GSAP** for fluid animations.
  – Developed a dynamic events section, successfully optimizing the web interface to handle a footfall of **10k+ visitors**.
  – Executed targeted UI enhancements across the **Campus Ambassador** portal to improve navigation and appearance.
  – Debugged and restructured the core **Django** backend framework to ensure seamless portal operations and routing.
- **Virtual Lab** *May 2026*
  Coding Club, IIT Guwahati bit.ly/VirtualLabGit | bit.ly/VirtualLabWeb
  – Engineered a multiplayer physics engine using **WebSockets** and Host/Guest architecture at **60fps** synchronization.
  – Integrated **Matter.js** for multi-segment constraints, utilizing database serialization to securely save dynamic states.
  – Implemented fault-tolerant **host migration**, transferring authority if client disconnects to prevent frame drops.
  – Designed a split-deployment infrastructure using **React, Node.js, Socket.io, and MongoDB** for persistence.
- **Circuit Simulator** *Nov 2025*
  EE204 , Circuit Theory Course Project bit.ly/CktSimulator
  – Developed a Python circuit solver utilizing **NumPy** and **LU decomposition** for high-precision transient analysis.
  – Implemented a dual-stack state management system within a **Tkinter GUI** for robust undo/redo functionality.
  – Built an interactive full-stack web interface using **Eel, HTML**, and **Chart.js** for real-time visual simulation.
  – Designed a dynamic **node mapping algorithm** to detect floating pins and prevent **singular matrix errors**.
- **Other Small Projects**
  Tech Stack: HTML, CSS, JS, API integration
  – **Weather App** : Weather tracker using OpenWeatherMap API, featuring manual search and live geolocation.
  – **Recipe Finder** : Single Page App fetching dynamic recipe data from TheMealDB API via async JS.

Technical Skills

- **Programming**: C/C++, JavaScript
- **Database Management**: MySQL, MongoDB*
- **Web Development**: HTML, CSS, JS, React.js, Django*
- **Miscellaneous**: Git, MATLAB*, Canva

** Elementary proficiency*

Key courses taken

- **Computer Science**: Data Structures & Algorithms, Memory Management, Web Development (CS50 : Harvard)
- **Mathematics**: Linear Algebra, Basic Calculus, Differential Equations, Probability and Random Processes
- **Electronics**: Signals and Systems, Digital Circuits, Circuit Theory, Control Systems, Analog Circuits

Positions of Responsibility

- **Web Coordinator**, SAB (Student's Academic Board), IIT Guwahati *May. 2026 - Current*
  – Automated transparent QR code generation and dynamic placement into certificate templates using **Pillow**.
  – Architected a **Django** signature bank to dynamically render customized data onto digital certificates.
- **Senior Web Developer**, SWC (Student's Web Committee), IIT Guwahati *Oct. 2025 - Current*

Achievements

- **Codechef**: Achieved a maximum rating of - **1421** | 2 star rated | Handle - vaib_pod *2026*
  – Secured **Rank 1848** among **38k+** candidates in CodeChef Starters 231
  – Secured **Rank 1915** among **16k+** candidates in CodeChef Starters 239
- **Hacksagon 2026**: National Finalist: Ideated a centralized digital platform enhancing campus accessibility. *2025*

Extracurriculars

- **Literature Society**: Have been an active member of the LitSoc, IITG, writing poems/shayris in Hindi.
- **Designer at RIC**: Was part of the design team at the Research and Industrial Conclave, 2025.
- **Alcheringa, IIT Guwahati**: Worked as a WebOps executive at the annual fest of IIT Guwahati, Alcheringa.
- **Cepstrum Mentor**: Guided and mentored 3 students in their academic and professional development.