

DEBDUT BRAHMACHARI

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Summary

Electronics and Communication Engineering student with experience in VLSI, machine learning, and software development. Seeking a role in technology consulting, data analytics, or software engineering.

Education

Vellore Institute of Technology, Chennai

July 2025

B. Tech, Electronics and Communication Engineering — **CGPA:** 8.25

Relevant Coursework: Computer Networks, Machine Learning, DBMS, VLSI Design

Technical Skills

Languages: Java, Python, HTML, CSS, JavaScript, SQL

Tools: MATLAB, MySQL, R Studio, Quartus Prime, Cadence

Platforms: Web, Windows, Arduino, Raspberry OS

Professional Experience

MAVEN Silicon, Remote

Aug 2023 – Oct 2023

VLSI Design Intern

- Designed and implemented a RISC-V RV32I processor, optimizing execution efficiency by 15%.
- Integrated the processor into an Alarm Clock simulation for practical implementation.
- Gained hands-on experience with 5+ industry-standard VLSI design tools.

Academic Projects

Wearable Device for Fall Detection and Healthcare Monitoring

Sep 2024 – Feb 2025

- Monitored 6+ vital signs using sensors (temperature, heart rate, pulse oximeter, ECG).
- Achieved 90% accuracy in fall detection using an accelerometer and gyroscope.
- Implemented real-time alerts using Blynk IoT, reducing emergency response time by 40%.
- Integrated a GSM module for automatic emergency calls.

Article Summarizer from Various Web Pages

May 2023 - July 2023

- Reduced article length by 80% while maintaining key insights.
- Implemented a URL input feature, improving user efficiency by 5x.
- Built using HTML, CSS, JavaScript, Python, BeautifulSoup, NLTK, Flask.

Leadership & Activities

Core Member, IEEE EMBS - VIT, Chennai

Feb 2023 – Present

- Led website development, increasing IEEE EMBS engagement by 40%.
- Organized and managed 10+ technical and leadership events.