# Devansh Sharma

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## Internships

**•Indian Institute of Technology Guwahati | Onsite** *June - September 2023*

*Intern - Department of Computer Science & Engineering (MARS LAB)* North Guwahati, Assam

- **Optimized Network-on-Chip (NoC) performance for Deep Neural Network (DNN) implementations.** Leveraged C++ and Python3 to analyze performance bottlenecks and develop mapping strategies for efficient DNN execution on NoC architectures.
  (**Keywords:** Network-on-Chip, Deep Neural Networks, Performance Optimization, C++, Python)
- **Enhanced understanding of AI hardware-software co-design principles.** Gained valuable experience in the interplay between architectural design and mapping optimization, contributing to the development of efficient AI hardware accelerators.
  (**Keywords:** AI hardware, accelerator design, co-design)

**•Growth Purple | Remote** *June - October 2023*

*ML Engineer Intern* Hyderabad, India

- **Developed a generative AI-powered interactive chatbots for clients..** Created an intelligent interaction system using advanced natural language processing techniques, enabling seamless data analysis with machine learning technologies.
  (**Keywords:** Generative AI, LLM, Streamlit, Langchain, PDF Analysis, Machine Learning)

## Technical Skills

**Programming Languages:** Python, C++, JavaScript, SQL
**Web Development:** HTML, CSS, Tailwind CSS, React, Django, FastAPI, Streamlit
**Frontend Frameworks & Libraries:** React, Tailwind CSS
**Cloud & DevOps:** Docker, Git, AWS (S3, Beanstalk), Google Cloud Platform (GCP)
**Database Technologies:** PostgreSQL, Firebase
**Machine Learning & Data Science:**
Frameworks: PyTorch, Scikit-learn
Libraries: NumPy, Pandas, Matplotlib
**GUI Development:** PySide
**Soft Skills:** Problem Solving, Time Management, Team Collaboration, Communication
**Areas of Interest:** Linux, Cloud Computing, Artificial Intelligence
**Hobbies:** Karate, Reading, Video Games

## Projects

**•Big Defend** *Jan 2025 – Ongoing*

*An open-source real-time Cybersecurity incident response system using Big Data.*

- Tools & technologies used: NumPy, Nmap, Requests, Scapy, Scikit-learn
- Developed a real-time cybersecurity incident response system leveraging Big Data technologies for efficient detection and analysis of security threats.

**•CHIP-8 Emulator** *June 2024 – July 2024*

*A CHIP-8 emulator in C++*

- Tools & technologies used: C++, SDL2, Low-Level Programming, Emulation
- Built a CHIP-8 emulator in C++ to replicate the functionality of the classic 1970s-era CHIP-8 virtual machine, accurately executing original CHIP-8 programs and games.

**•Interactive PDF Chatbot with LLM** *June 2023 – Sept 2023*

*Interactive PDF Chatbot with Machine Learning*

- Tools & technologies used: Streamlit, Langchain, Hugging Face API, Gemini
- Developed a user-friendly Streamlit application enabling seamless interaction with PDF files through a conversational interface powered by Large Language Models (LLMs).

**•Smart Parking & Toll Management System** *Sept 2023 – Nov 2023*

*Engineered an automated system using IoT components, RFID sensors, and real-time data processing.*

- Tools & technologies used: Vega Aries v3.0, ESP8266, RFID, C/C++, Firebase
- Engineered an automated system with IoT components and RFID sensors for smart parking and toll management, incorporating real-time data processing to optimize vehicle flow.

## Certifications

**•Summer School on AI Technologies** UUST, Russia *2024*
**•AWS Cloud Architect** AWS Academy Graduate *2024*
**•Introduction To Internet of Things** (NPTEL) *2023*
**•Google IT Automation with Python** Coursera *2024*

## Publications

- **A Cloud-Based Telemedicine Platform: Enhancing Healthcare Accessibility through Technology**
  International Conference on Progressive Innovations in Intelligent Systems and Data Science
  Published by IEEE Computer Society on IEEE Xplore *Dec 2024*
- **Efficient Parking & Toll Management:A RFID-Enabled Approach with Vega Aries Development Board**
  International Journal of Innovative Science and Research Technology (Volume 8, Issue 11) *Nov 2023*

## Education

- **Bachelor of Engineering in Computer Science** *2021-2025*
  *Chandigarh University, Mohali* CGPA: 7.8/10
  **Coursework:** Operating Systems, Data Structures and Algorithms, Database Management Systems, Computer Networks, SDLC, Artificial Intelligence, Cloud Computing

- **Intermediate (Non-Medical)** *2020-2021*
  *Darshan Academy (CBSE), Punjab* Percentage: 81.4%

- **Matriculation** *2018-2019*
  *Darshan Academy (CBSE), Punjab* Percentage: 83.6%