



# Devansh Sharma

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Python Developer

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## INTERNSHIPS

- **Indian Institute of Technology Guwahati** May 2023 – July 2023  
*Research Intern – Dept. of CSE (MARS Lab)* North Guwahati, Assam
  - Accelerated DNN inference on Network-on-Chip (NoC) architectures using **Timeloop, C++, and Python**. Focused on AI hardware-software co-design and simulation.
  - Achieved **23% latency reduction** through optimized data mapping and efficient memory scheduling.
  - Built and validated NoC simulation models to test various DNN workloads under different network topologies.
  - Contributed to academic research on AI accelerator design and architectural performance analysis.
- **Growth Purple** June 2023 – October 2023  
*Mentee (ML Engineering)* Hyderabad, Telangana
  - Gained hands-on experience in building a **PDF chatbot using LLMs, Streamlit, and LangChain** for real-time document interaction.
  - Improved understanding of **RAG implementation** for enhanced context retrieval in AI applications.
  - Developed practical skills in **model integration and deployment** within a professional ML environment.
  - Collaborated closely with senior ML engineers, learning best practices in **AI project management** and development workflows.

## TECHNICAL SKILLS

**Programming Languages:** Python, C++, Rust  
**Cloud & DevOps:** Docker, Git, AWS (S3, Beanstalk), Google Cloud Platform (GCP)  
**Database Technologies:** PostgreSQL, Firebase  
**Data Science & Machine Learning:** PyTorch, NumPy, Pandas, Matplotlib, Scikit-learn  
**Frontend Development:** Flet, Streamlit, HTML, TailwindCSS, React  
**Backend Development:** FastAPI, Flask  
**Soft Skills:** Problem Solving, Time Management, Team Collaboration, Communication  
**Interests & Hobbies:** Linux, Cloud Computing, Artificial Intelligence, 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 cyber security 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.
- **PaperWise** June 2023 - Sept 2023  
*Engineered an intelligent PDF assistant.*
  - Tools & technologies used: PySide6, Ollama, Langchain, Hugging Face API, Gemini
  - Engineered an intelligent PDF assistant using PySide6, Ollama, and PyMuPDF for seamless document interaction, smart Q&A, and offline AI processing.
- **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
- **NDG Linux Unhatched** Cisco NetAcad 2023
- **Vega Processor Ecosystem** C-DAC, IEEE India Council 2023

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

Chandigarh University, Mohali

Relevant Coursework:

Core Computer Science: Algorithms, Data Structures, Computer Architecture, Operating Systems

Data & Analytics: Big Data Analytics, Data Visualization, DBMS

AI & Networks: Machine Learning, Computer Vision, Computer Networks

2021 – 2025  
CGPA: 7.76
- Intermediate (Non-Medical)

Darshan Academy, Ludhiana (CBSE)

2020 – 2021  
Percentage: 81.4%
- Matriculation

Darshan Academy, Ludhiana (CBSE)

2018 – 2019  
Percentage: 83.6%