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, Tailwind CSS, React, Django, FastAPI, Streamlit
Cloud & DevOps: Docker, Git, AWS (S3, Beanstalk), Google Cloud Platform (GCP)
Database Technologies: PostgreSQL, Firebase
Data Science & Machine Learning:
Frameworks: PyTorch
Libraries: NumPy, Pandas, Matplotlib, Scikit-learn
GUI Development: PySide, Tkinter
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 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** *Dec 2024*
  International Conference on Progressive Innovations in Intelligent Systems and Data Science
  Published by IEEE Computer Society on IEEE Xplore

- **Efficient Parking & Toll Management: A RFID-Enabled Approach with Vega Aries Development Board** *Nov 2023*
  International Journal of Innovative Science and Research Technology
  Volume 8, Issue 11

Education

- **Bachelor of Engineering in Computer Science** *2021-2025*
  Chandigarh University, Mohali CGPA: 7.8/10
  Coursework: OS, Data Structures, Algorithms, DBMS, CN, SDLC, AI, Cloud Computing

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

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