

Pankaj Kumar

Bihar sharif, Nalanda, 803101, Bihar

8544026713 | pankajpk7017kr@gmail.com

<https://www.linkedin.com/in/pankaj-kumar-563304238/>

[panGIHUB \(PANKAJ KUMAR\)](#) | <https://pangihub.github.io/pankajkumarportfolio/>

Objective

I seek challenging opportunities to fully use my skills for the organization's success.

Education

National Institute of Technology, Srinagar

2021-2025

(B-Tech) in Electronics and Communication Engineering

PCP College, Sohsarai, Nalanda, BSEB

Intermediate (12th), PCM

Aadarsh High School, BSEB

Matriculation(10th)

Technical Skill

Programming Languages: Python, C, C++, SQL

Web Development: HTML, CSS, JavaScript, React.js

Databases: MySQL, DBMS

Software Development: Data Structures and Algorithms, OOPS

Frameworks & Libraries: React, Next.js

Developer Tools: VS Code, Jupiter Notebook, MySQL Workbench, Vlvado, MATLAB

Operating Systems: Windows, Linux

Embedded Systems & FPGA: Knowledge of Analog and Digital Electronics, Microprocessors, Microcontrollers, VHDL, etc.

Project

8085 Microprocessor Emulation using FPGA (Ongoing)

- Designed an **8085 Microprocessor emulator** using **VHDL and FPGA**, focusing on components like Accumulator, ALU, Temporary Register, and Flag Register.
- Implementing VHDL modules (AU.vhdl, LU.vhdl, MUX.vhdl, and master.vhdl) to simulate the microprocessor's functionality.

Underwater Image Enhancement (Completed – IIT Guwahati Internship)

- Implemented **image processing techniques** using **Python and OpenCV** to enhance underwater images.
- Focused on **white balance correction and global enhancement** to improve image visibility and clarity.

Portfolio Website (Live)

- Designed and developed a personal portfolio website showcasing skills, projects, and achievements.
- Built using React.js, HTML, CSS, and JavaScript with a responsive and user-friendly design.

Advanced Dashboard (Ongoing) – React.js dashboard with data visualization and analytics.

Student Database Management System (Ongoing) – A CRUD-based system for managing student records efficiently.

Word Count Application (Completed & Deployed) – Firebase-hosted app for real-time word and character counting.

Currency Converter Web App (Completed) – HTML, CSS, and JavaScript-based converter with real-time exchange rates.

Certificate

Internship Certificate – IIT Guwahati (Dec 2023 – Feb 2024)

"Optimizing Underwater Image Quality: White Balance and Global Enhancement Techniques" (Python, OpenCV)

online WGCapD Webinar Series on "Geoprocessing using Python".

- IIRS (ISRO)

Indian Nanoelectronics Users' Programme -idea to innovation

-IIT Kharagpur

The fundamentals of digital marketing

-Google Digital Unlocked

C, C++, SQL

-Lets Upgrade

Tools for Data Science

-IBM

Work Experience

Research Intern – Indian Institute of Technology (IIT) Guwahati

Dec 2023 – Feb 2024

- Worked on **underwater image enhancement** using **Python and OpenCV** to improve image clarity.
- Implemented **white balance correction and global enhancement techniques** for better visual quality.

Extracurricular Activities

Technical Projects – Developed software, web, and embedded system projects.

Certifications & Training – Participated in programs from **IIT Kharagpur, NPTEL, and IIRS.**

Leadership & Teamwork – Led multiple academic and personal projects.

Graphic Design – Designed visuals for **college programs** and events.

Public Speaking & Communication – Engaged in presentations and knowledge-sharing.

Achievement

- 500+ solved questions on leet-code
- 2nd position in district-level debate competition