

Sarvesh Vhawal

INDIAN INSTITUTE OF TECHNOLOGY ROPAR, PUNJAB

☎ (+91) 87963-92312 | ✉ 2018CSB1121@iitrpr.ac.in | 📷 sarveshvhawal007 | 🌐 sarvesh-vhawal-3a3831190

Education

Indian Institute of Technology Ropar

B.TECH IN COMPUTER SCIENCE AND ENGINEERING | CONCENTRATION IN ARTIFICIAL INTELLIGENCE.

- Current C.G.P.A- **7.83/10**

Ropar, India

Since- Aug. 2018

Skills and Interests

Programming Lang. C/C++, Python, PHP, JavaScript, HTML5, CSS

Software/ OS/ Tools Android Studios, PyQt Designer, Xillins Vivado, Git, Processing, Adobe Photoshop CC18, Linux(Ubuntu).

Interests/ Hobbies Game Development, Graphic Design, Classical instrument -Tabla (Intermediate Level), Badminton.

Experience

Smart India Hackathon 2020

SOFTWARE DEVELOPER ENGINEER

Aug. 2020

- Secured **2nd** place **winner** at National Level Grand Finale of SIH'20 under the AICTE-MIC **Student Innovation** category.
- Developed the entire **Web and Android** interface for chatting using the Realtime-Firebase Cloud Database.
- Contributed in training the developed AI ChatBot for better responses for the user.

NanoVoid | [Link]

SOFTWARE DEVELOPER INTERN

Rupnagar, Punjab

July. 2020 - Aug. 2020

- Designed, Developed, and hosted a **product** based **Web Application** for NanoVoid.
- Developed the entire **Back-End** used for managing queries and requests of clients through the application.
- Handled database using **MySQL** and **PHP**, and Front-End using **HTML5**, **CSS**, **JavaScript**, and **BootStrap**.

IIT Ropar

FULL STACK DEVELOPER INTERN

Guide: Dr.Ashish Sahani, IIT Ropar

Nov. 2019 - Feb. 2020

- Developed **Web Portal** for a **Govt. hospital** in Ludhiana for maintaining the medical history of newborn infants.
- Designed and Implimented features like authenticated login for doctors, insertion, managing the information, and auto reports generation.
- Handled database using **MySQL** and **PHP**, and Front-End using **HTML5**, **CSS**, and **JavaScript**.

Projects

Real-Time Digital Image Processor | 📷

SOFTWARE: XILINX VIVADO, AND SPYDER, LANGUAGE/LIBRARY: VERILOG, AND NUMPY.

- Implemented **filter algorithm** with Zero Pixel Reduction on FPGA Board for real-time mean **Blurring** of **digital image** using specifically designed Spatial Lowpass filter with **1/9** pixel weight.

Fast Bit-Multipliers | 📷

Guide:Dr. Neeraj Goyal, IIT Ropar

SOFTWARE: XILINX VIVADO, HARDWARE DESCRIPTION LANGUAGE: VERILOG

- Designed and implemented 2 hardware efficient multipliers **Dadda and Wallace** for 64-bit fast multiplication using **O(log(N))** reduced layers, to study **Gate-level** processing and **Power Consumption** with minimum Area Cost as possible.

RISC-V ISA Simulator | 📷

Guide: Dr. T.V. Kalyan, IIT Ropar

SOFTWARE: SPYDER, PROGRAMMING LANGUAGE/LIBRARIES: PYTHON, NUMPY, REGEX

- Designed and developed a simulator(with GUI) for RISC-V instruction set architecture with functionalities of **pipelining**, instruction level **parallelism**, **data forwarding**, **1-Bit Predictor**, and **Parser** for processing labels and assembly directives.

Relevant Courses

Computer Science Data Structures, Computer Architecture, Digital Logic Design, Programming Paradigms and Pragmatics, Discrete Mathematics.

Mathematics Advance Calculus, Differential Equations, Linear Algebra, Probability and Statistics.

Miscellaneous

Position of Responsiblites

- 2019-present **Senior Member**, Monochrome Club, IIT Ropar.
- 2019-present **Mess Representative Sophomore Year**, Mess Working Committee, IIT Ropar.
- 2018-2019 **Coordinator**, Ganesh Festival, IIT Ropar.

Achievements

- **Top 4 Finalist** at **Smart India Hackathon 2019** under Agriculture Problem Category for developing **app-AgriZone**.
- Secured **98.1** percentile out of **0.25** million candidates in **JEE Advanced, 2018**.
- Secured **99.55** percentile out of **1.5** million candidates in **JEE Mains, 2018**.
- Secured State **Rank-840** in **MHT-CET, 2018**.

Social Service

- Organized awareness campaign for construction workers on cleanliness and management of waste/litter.
- Participated in Republic Day cleanliness drive by NSS IIT Ropar .