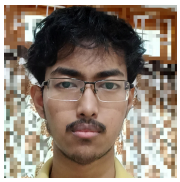

Mayurdeep Sonowal

UG (IV Year II Semester)
B.Tech. (Electronics & Communication Engineering)
Contact No: 8471893307
Email: mayurdeep_s@ece.iitr.ac.in
Registration No: 20116054/2024

Indian Institute of Technology Roorkee

VERIFIED

Area of Interest

Data Structures and Algorithms, Problem Solving, Competitive Programming, Music Production

Education

Year	Degree/Examination	Institution/Board	CGPA/ Percentage
2024	B.Tech. 4th Year	Indian Institute of Technology, Roorkee	7.077
2020	Intermediate (Class XII)	Dr. Radhakrishnan School of Arts, Commerce and Science	92.20 %
2018	Matriculate (Class X)	Vivekananda Kendra Vidyalaya	94.00 %

Internships

Application Development Intern | Cypher App Service Private Limited — July 2023 - Present

- Worked on development and management of iOS version of a Mobile Application which is incorporated with lossless compression algorithm.
- Integrated the company's proprietary lossless compression algorithms into the app, significantly reducing file sizes without any data loss.
- TechStack: SwiftUI, Swift, Xcode

Projects

Create a program (using any programming language) to produce the Verilog HDL for an N-by-N(N given by the user) Sklansky Adder. | ECE department, IIT Roorkee — June 2021 - July 2021

- In this course project during the 2nd Semester, we implemented Sklansky Adder, a type of Tree Adder for binary number addition. The project involved recursively building adders from 2-bit to N-bit using C++. Users could input the value of N to generate the Verilog code for an N by N Sklansky Adder as a text file, directly compatible with Verilog Simulators.

Unsupervised character recognition with simplified FPGA neuromorphic system | ECE department, IIT Roorkee — August 2022 - November 2022

- Developed and implemented a Spike Neural Network (SNN) model for image classification using the MNIST dataset. Employed the Leaky Integrate and Fire Neuron model to replicate synaptic functionality. Implemented the forward propagation component of the Spike Neural Network in Verilog and realized it in FPGA.

Acoustic Communication via Software Defined Open Architecture Modem (SDOAM) | IIT Roorkee — January 2023 - April 2023

- Completed it as part of Lab Based Project required to be done in the 6th semester.
- Developed a simulation of low-cost underwater modem using UnetStack and Unet audio. Conducted simulations of underwater acoustic communication with Unet Simulator by UnetStack, while exploring diverse modulation schemes.

Imagify | Self Project — June 2023

- Developed an iOS image classification application using CoreML and Vision frameworks, leveraging MobileNet V2 as the pre-trained model.

Skills

Computer languages	C++, JAVA, Swift
Software Packages	VS Code, XCode, Matlab & Simulink, FL Studio 20, Ableton Live 11
Additional Courses	Probability and Statistics, Data Structures and Algorithms, Object Oriented Programming
Languages Known	English(SRW), Hindi(SRW)

Positions of Responsibility & Extra Curriculars

Competitive Programming | Online Judges — December 2020 - Present

- Active Member of Various Online Judges including Codeforces and Codechef.
- Codeforces Username: mayson_761
- Codechef Username: mayurdeep_s

Joint Secretary | Audio Section, IIT Roorkee — April 2022 - April 2023

- Member of the Section as a Music Producer
- Involved in Audio Mixing and Mastering
- Produced, mixed & mastered music tracks released through Youtube Channel of the Section
- Arranged an online workshop on Music Production

References

Dr. Vinod Pankajakshan
Assistant Professor
IIT Roorkee
vinod.pankajakshan@ece.iitr.ac.in