Jatin Gupta

Bachelor of Technology
in Computer Science Engineering
Indian Institute Of Technology, Ropar

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Education

Degree	Institute/Board	CGPA/Percentage	Year
Bachelor of Technology	Indian Institute of Technology, Ropar	7.84 (Till 4th Sem)	2020-2024
Senior Secondary	Central Board of Secondary Education	93%	2020
Secondary	Central Board of Secondary Education	86%	2018

Projects

- **Implementation of Utility-Based Cache Partitioning** *April 2022 - May 2022*
  Computer Architecture **Github**
  - The goal of this project is to implement Utility Cache based partitioning (UCP) in Champsim, a trace-based microarchitecture simulator using **C++** language.
  - In Multicore Processors, the lowest level cache is shared by all cores, So instead of static partitioning Using utility-based partitioning, allocated dynamic cache memory to different cores to Minimise Miss count.
  - Implemented Look-Ahead Algorithm to find a new partition of last level cache.
- **Syntax Checker For C Language** *Mar 2022 - Apr 2022*
  Deepti R. Bathula **Github**
  - This Toy Compiler Performs Lexical Analysis and Syntax Analysis for given piece of code Using Lex And Yacc.
  - The code was tokenised using Lex, and the tokens were parsed using Yacc.
  - Reports any syntactical and lexical errors in a sample code .
- **Text file compression using Hoffman encoding** *Sep 2021 - Oct 2021*
  Data Structure and Algorithm **Github**
  - The project aims to implement the Huffman encoding and decoding process using Min Heap.
  - It is a statistical compression method that converts characters into variable-length bit strings and produces a prefix code.
  - Basic Concept of Trees, Hashing, Linked list and File handling Were used to Make compressor.
- **Smart Car Parking System using Verilog** *Oct 2021 - Nov 2021*
  Digital Logic Design **Github**
  - The Main Objective of This Project is to automate parking System implemented Using Finite-state machine in verilog HDL.
  - This project ensures the safety of Parked cars and prevents collisions between entering a car and exiting cars.
- **Web Projects** *June 2021 - Aug 2021*
  Personal **Github**
  - Responsive Portfolio **Website** developed Using HTML, CSS, JS
  - **Clock** And **Stopwatch** Using HTML CSS JS

Technical Skills

- **Programming Languages**: C/C++, Javascript, Python, Java, Perl
- **Front-End Web Technologies**: HTML5, CSS, Bootstrap, React
- **Libraries/ frameworks/ OS**: Matplotlib, Numpy, Pandas, Linux, git, Tinkercad, Latex

Key courses taken

- **CSE**: Algorithm & Data Structure, Computer Architecture, Programming Paradigms, Digital Logic Design
- **Maths**: Discrete Mathematics, Probability and Statistics, Advanced Calculus and Linear Algebra
- **Others**: Economics, Signals and Systems, Basic Electronics , Tinkering Lab

Positions of Responsibility

- **Team Leader, Event Management Team**,Zeitgeist, IIT Ropar *Apr. 2021 - May 2021*
- **Team Member, Publicity Team** ,Advitiya, IIT Ropar *Apr. 2021 - May 2021*
- **JEE Mentor**,S.H.V.M School *Dec. 2020 - June 2021*

Achievements/Certificates

- **Qualified JEE Advanced 2020**, Among top 1% *2020*
- **Qualified JEE Mains 2020**, Among top 1% *2020*
- **Competitive Programming**, Global Rank 168 CodeChef Starters 31 Division 2 *Codechef*
- **Complete JAVASCRIPT with HTML5,CSS3 from zero to Expert-2022**, Completed Udemy Course *Udemy*
- **Intro to React: Build a Youtube App 2021**, Completed Udemy Course *Udemy*
- **Master C++ Programming From Beginner To Advance**, Completed Udemy Course *Udemy*