



SANJAY P LAL

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EDUCATION

Computer Science and Engineering

Indian Institute of Technology Delhi

2017 – Present

Hauz Khas, New Delhi

Class XII

Saint Soldier Public School

2015 – 2016

Jaipur, Rajasthan

Class X

Saint Soldier Public School

2014– 2015

Jaipur, Rajasthan

PROJECTS

Decision Making for Teams (Prof. Rohan Paul) | *Python*

December, 2020 - December, 2020

Artificial Intelligence

- Design and Implemented Monte Carlo Tree Search Simulation for the decision for two agents
- The AI agent must reason about trading off trying to capture resources versus trying to defend its own resources and effectively functioning both as a ghost and a Pacman in a team setting.
- We had to decide an algorithm for the decision making for limited computational time which is to be according to any kind of machine in one second.

Adversarial Search (Prof. Rohan Paul) | *Python*

December, 2020 - December, 2020

Artificial Intelligence

- Designed and implemented Evaluation function which choose the best decision based on the current state of game for eating food avoiding Ghost in the Game Pacman
- Implemented Minimax, Alpha-Beta Pruning, Expectimax algorithms for the search of optimal decision for AI in the game pacman for Agent
- Got 23.91/25 when the class average was 21.52 and relative grading was done based on the rank on performance of new Evaluation Function for Expectimax

Stock Management (SRIKANTA BEDATHUR JAGANNATH) | *Java*

February, 2020- February, 2020

Data Structures and Algorithm

- with the help of generic linked list created a data structure to handle Stocks in a warehouse
- Warehouse contains Different Categories of Products, those products contains Different Companies and in that Different products
- Then applied Merge Sort on the linked List

Handling Election Query (SRIKANTA BEDATHUR JAGANNATH) | *Java*

August, 2019 - August, 2019

Data Structures and Algorithm

- Implemented Binary Search Tree and Heap Data Structures
- By using BST and Heap, Handled Queries of a election
- A Vidhan Sabha Election held at multiple States in India in which we need to handle 6 data members and keep a track all the data members

Build a Clock and implement on basys3 (Prof. Anshul Kumar)

August, 2019 - August, 2019

Digital Logic and System Design

- Using VHDL and Vivado Designed a seconds counter from 1Mhz clock
- After adding counters reduced the speed of clock and Designed a Logic from Counters to make a clock
- After the schematic implemented on basys board written a VHDL code for the interaction and output shown using the seven segment LED Display

WORK EXPERIENCE AND INTERNSHIPS

Subject Matter Expert

May,2019 - July, 2019

Youscore Solutions Pvt. Ltd.

New Delhi

- Verified and created JEE, NEET and AIIMS entrance exams Physics content in a structured, simplified and accurate way
- Created video lectures and exam papers for students preparing for entrance exams
- Designed test papers and solutions for physics subject

Social Internship

May, 2019 - June, 2019

BloodConnect

New Delhi

- Attended 3 blood donation camps collecting 100+ units of blood
- Participated in 2 mega awareness session at CP and DLF promenade impacting 5000+ people
- Handled emergency blood request by connecting patient to voluntary donor and ensuring proper coordination

EXTRA CURRICULAR ACTIVITIES

Sports

Sports Activities

- Participated in Inter-hostel: Volleyball, Weightlifting,High Jump
- Helped hostel secured second in General Championship, 2018
- Part of hostel Contingent finishing third in General Championship, 2019

SKILLS

Languages: English , Hindi

Programming: Python (NumPy, SciPy), C, C++(OpenCV), Java, Standard ML, VHDL

Document Creation: Microsoft Office Suite, LaTeX, Adobe PhotoShop, Adobe LightRoom (CC and Classic), Vivado, Autocad.