Raman Deep

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Education

IIT JODHPUR

B.Tech in Computer Science Engineering
Exp- 2024 | Jodhpur, Rajasthan, India
CGPA:6.1/10 (upto 3^{rd} year)

GOVT. SUBHASH EXCELLENCE SCHOOL

Class XII | MPBSE
2020 | Bhopal, Madhya Pradesh, India
Score: 90.4 %

GOVT. HIGHER SECONDARY SCHOOL

Class X | MPBSE
2018 | Bhind, Madhya Pradesh, India
Score: 94.8%

Coursework

UNDERGRADUATE

- Data Structures and Algorithms
- Pattern Recognition and ML
- Software Engineering
- Operating System
- Database Management System
- Computer Network
- Cyber Security
- Computer Architecture
- Maths for Computing

Skills

PROGRAMMING

• Python • C/C++• SQL • Verilog

PARALLEL PROGRAMMING

• OpenMP • Cuda

FAMILLIAR WITH

• Java • Kotlin • XML • HTML •CSS

TECHNOLOGIES

• Microsoft Office • Firebase • Android Studio • VSCode• Adobe premiere pro • Vivado • Google colab

Interests

• Competitive Programming **(3 star at CodeChef highest rating 1631)**
•Traveling •Cricket •Badminton •Video Editing (**was a member of Frame-X club of IITJ**)

Experience

APP DEVELOPMENT TRAINING AND INTERNSHIP

ArtifIntel through Skill Vertex
5 Jan – 5 March 2022 Remote
GitHub Link Minor Project | | GitHub Link Major Project

- acquired the basic concepts of Android development in the first month.
- In the subsequent month, I worked on both a major project—a Music Player app and a minor project—a Notes storage app.

Projects

VOXELIZATION OF MOVING DEFORMABLE GEOMETRY ON GPU

Dr.Dip Sankar Banerjee & Dr.Nipun Arora

- This work highlights a GPU-accelerated algorithm for voxelization of moving deformable geometries intended for CFD solvers based on lattice Boltzmann method using CUDA.
- It's optimized and significantly faster than previous methods, facilitating the real-time voxelization of complex deformable geometries.
- Co-Authored a research paper targeting submission to the Journal of Parallel and Distributed Computing(JPDC)

ATTENDANCE APP Self Project | **GitHub Link**

- Developed an application to mark student's attendance and record their location at same time to reduce time and proxy.
- It allows teachers to generate QR codes for their students. Student can scan the QR codes using their mobile devices.
- tools such as Android Studio, Google Map API, Firebase.

AUTOMATION OF NORMALIZATION OF AN RDBMS

Database Management System course project| **GitHub Link**

- Designed an algorithm to automate normalization mechanism for an RDBMS. which takes Functional dependencies as input.
- Identifies the Candidate key, Normal Form and performs further reductions if necessary.

FOODOFEST APP

Software Engineering course project | **GitHub Link**

- A delivery App Followed by Software Engineering Principle.
- Where registered users order food from the nearest restaurants and share their experience. tools: such as Android Studio, and Firebase.

DATA ANALYTICS (DEEP LEARNING) | **Dr. Ajay Agarwal IIT Jodhpur**

- Analyzed the Raman Spectroscopic data of different types of Honey.
- Preprocessed the data by Smoothing,Baseline correction and found the raman peaks of every sample.Classified the samples using Deep learning
- Tools:CNN DL model,Matplotlib,sklearn, TensorFlow, Scipy,Pandas.

TRAFFIC PREDICTION PRML course project | **GitHubLink**

- Deployed a machine-learning model using StreamLite,which detects which junction has minimum traffic and how many vehicles are there on the junction, based on training data.
- Tools: StreamLite, Matplotlib,sklearn,Numpy,Flask.

Academeic Achievement

- Honored with the opportunity to present the voxelization work at **HiPC, 29th IEEE International Conference**.
- Received certificate of excellence in UG Research Day (Dept competition) on Voxelization work.
- Secured 1st rank in Bankruptcy prediction kaggle competition over 250 students in PRML course.
- Selected in Super 100 (Top 100 students of M.P.) 2018.