RUPESH KUMAR DUBEY

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EDUCATION

2020 - 2025 Jawaharlal Nehru University

New Delhi, India

2018 - 2019 New R.S.J Public School

W K.S.J Public School

B.tech+M.tech Integrated Course, Computer Science Engineering: 7.71/10

CBSE Intermediate (Class XII) Percentage: 88%

2016 - 2017 New R.S.J Public School

CBSE High School (Class X) CGPA: 10/10

Prayagraj, India

Prayagraj, India

SKILLS AND ACHIEVEMENTS

Coding Languages HTML, CSS, Python, JavaScript, C, C++

Relevant Skillset Numpy, Pandas, Keras, Tensorflow, Sklearn, React Js, NodeJs (Intermediate)

Technical Skillset Data Structures and Algorithms, Git, Web Development, Machine Learning

Coursework Database Management Systems, Data Structures, Design and Analysis of Algorithms, Operating Systems,

Object Oriented Programming, Computer Networks, Software Engineering, Digital Image Processing

WORK EXPERIENCE

2022 Developing Intern, Octaware Technologies

Organizational ethos prioritized a strong emphasis on front-end development.

- Utilized Node.JS to code and debug software components.
- Collaborated within an agile development team, participating in daily stand-ups, to identify and resolve bugs, ensuring error-free code.

PROJECTS AND RESEARCH

2023 Resilience of Delhi Road Networks to Traffic Disruptions

- Examined the resilience of **Delhi Road Networks**, from Open Transit Data- Delhi, using Network Science to develop a more resilient traffic model.
- Analysis based on network library, Directed Acyclic Graph, and degree distribution
- Results depicted Scale-free property, Power-Law Distribution, and stimulated disruptions followed by recovery strategies depicted pliability.
- With a Change in Degree of Robustness of about 0.232% and a standard deviation of 0.672%.
- Demonstrating the inherent resilience of the Delhi Road network, by its scale-free property.

2022 Efficiency of Raindrop Detection and Removal Models on Monocular Images

- Examined performance metrics of Detection Algorithms based on CNN.
- Updated the raindrop removal algorithm for **Tensorflow 3. x** versions, and analyzed the metrics.
- Metrics depicted a fair percentage of (82 +- 0.65)% accuracy to the test dataset.
- The model involves residual blocks (ResNet-50) with attention mechanisms and subsequent convolutional layers for feature extraction using 'ResnetBlock_att'.

2023 Computational library for C++(Similar to Numpy in Python)

- Imitates the tensor behavior i.e. Creation, Broadcasting etc.
- Integrated NumPy-like features into the library, allowing developers familiar
- Ensured cross-language compatibility by aligning the library's syntax and functionality closely with NumPy
- Utilized version control systems such as Git to maintain a structured and collaborative development environment

CERTIFICATIONS

Python and Data Structures (**Coursera**, **2020**), Mastering Data Structures and Algorithms using C and C++ (**Udemy**, **2021**), Google Data Studio (**Enrolled**), Google Cloud Fundamentals: Core Infrastructure (**Coursera**)

EXTRACURRICULAR ACTIVITIES

2023 Coordinator Disha, an event on Entrepreneurship

2022 Perforemer Show-cased on various Stage Events as Guitarist.

GAMES & ACTIVITIES

Inter-Batch Chess Champion

JNU, School of Engineering