

# RUGVED MHATRE

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## EDUCATION

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**New York University, Tandon School of Engineering**, Brooklyn, NY Sep 2023 – May 2025  
Master of Science in Computer Engineering | GPA – 3.44/4.0  
Coursework – Advanced Machine Learning, Deep Learning, Machine Learning, Data Structures and Algorithms, Computing Systems Architecture, Parallel and Customized Computer Architecture

**University of Mumbai, Dwarkadas J. Sanghvi College of Engineering**, India Aug 2016 – Oct 2020  
Bachelor of Engineering in Electronics Engineering | GPA – 3.6/4.0  
Coursework – Database Management System, Digital Image Processing, Real-Time Operating Systems, Neural Networks

## EXPERIENCE

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**Sr. DevOps Engineer (Staff Consultant) | Oracle Financial Services Software**, Mumbai Sep 2022 – Jun 2023

- Developed a novel customer origination automation, resulting in a significant reduction of a 2-hour manual task to just 0.5 hours.
- Implemented a caching logic that optimized the performance of all scripts, resulting in a reduction of 15 minutes in execution time.
- Consistently acknowledged as a top performer for three months, with recognition from both peers and client for exemplary work.

**DevOps Engineer (Associate Consultant) | Oracle Financial Services Software**, Mumbai Oct 2020 – Sep 2022

- Implemented a concurrency algorithm for the execution of test cases and stress-tested our servers with more than 200 sessions at a time, achieving an exceptional 72 hours reduction in the total testing time of 471 test cases
- Designed an efficient algorithm by implementing a concurrency logic to transfer files over the network, thereby improving the speed of database backups by 50%
- Developed a checksum algorithm for file transfers over the network, resulting in improved data integrity by 100%
- Created scripts for database installation, configuration, and cloning, resulting in 80% fewer time delays and reducing the dependency on the database team
- Streamlined execution workflow, reducing 30% waiting time by improving the queuing logic to handle execution priorities and resource interdependencies

## PROJECTS

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**Visual Servoing system of an Autonomous Vehicle in CARLA Simulator**

- Implemented a visual perception module by training a deep learning U-Net model on TensorFlow for semantic image segmentation to estimate the drivable surface with an accuracy of 96% on training and test datasets
- Extracted lane markings by analyzing the drivable surface using Canny Edge Detection and Hough Line Transform algorithms to localize the ego vehicle in the environment

**Analysis of Machine Learning Models by Predictive Analysis of Diabetes in PIMA Indian Population**

- Applied KNN modeling to the PIMA dataset, achieving a commendable accuracy rate of 76.56% on test dataset
- Extracted valuable insights by identifying correlations and patterns crucial for understanding predictors of diabetes

**Handwritten Digit Recognizer using a simple Neural Network**

- Developed a machine learning model using NumPy to identify handwritten digits from  $28 \times 28$  pixels images
- Implemented a 784-neuron input layer, a 10-neuron hidden layer, and a 10-neuron output layer achieving 88% accuracy on training and test datasets

## SKILLS

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**Languages:** Python, Java, C/C++, Bash Shell Scripting, Expect Shell Scripting, SQL

**Technologies:** Jenkins, Git, Oracle Database 19c, Oracle Linux, Oracle Cloud, OpenCV, TensorFlow, MATLAB

## LEADERSHIP & VOLUNTEERING

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- Administered accounts and arranged independent events as the Treasurer for D. J. Sanghvi IEEE Student Chapter
- Trained 70 college students on the Software Development job interview process in undergraduate college
- Instructed five recruits at Oracle, conducting knowledge-sharing sessions on an overview of the codebase and the proprietary tools and technologies being used in the project