RUGVED MHATRE

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EDUCATION

New York University, Tandon School of Engineering, Brooklyn, NY Sep 2023 – May 2025

Master of Science in Computer Engineering

Coursework – Computer Systems Architecture, Data Structures and Algorithms, Machine Learning

University of Mumbai, Dwarkadas J. Sanghvi College of Engineering, Mumbai, India Aug 2016 – Oct 2020

Bachelor of Engineering (Electronics Engineering) | GPA – 3.6/4.0

Coursework – Applied Mathematics, Object Oriented Programming, Computer Organization and Architecture, Real-Time Operating Systems, Database Management System, Neural Networks and Fuzzy Logic, Digital Image Processing

EXPERIENCE

Staff Consultant (DevOps) | Oracle (OFSS), Mumbai, India 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.

Associate Consultant (DevOps) | Oracle (OFSS), Mumbai, India 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

TECHNICAL PROJECTS

Visual Servoing system of an Autonomous Vehicle in CARLA Simulator Apr 2020

- Implemented a visual perception module by training a U-Net model on TensorFlow for semantic image segmentation to estimate the drivable surface with an accuracy of 96% on training and test dataset
- 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

Handwritten Digit Recognizer using a simple Neural Network Dec 2019

- Developed a neural network using NumPy arrays to identify handwritten digits from 28 × 28 pixels grayscale 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 dataset

Pong Game in Assembly Language on x86 Architecture Apr 2018

- Utilized processor interrupts to generate computer graphics, read system clock and keyboard inputs, to create a Pong Game with single-player and two-player options

SKILLS

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

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

LEADERSHIP & VOLUNTEERING

- 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