

# Raj Mishra

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About me : <https://rajmishra1995.github.io/> | Github : <https://github.com/rajmishra1995/>

## EDUCATION

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**The University of Texas at Dallas, Richardson, TX** August 2021 - May 2023  
*Master of Science in Computer Science* GPA: 4.0/4.0  
Courses : Operating Systems, Database Design, Machine Learning, Statistical Methods for Data Science

**Birla Institute of Technology, Mesra, Ranchi, India** August 2014 - June 2018  
*Bachelor of Engineering in Electronics and Communication* GPA: 7.1/10  
Courses : Computer Networking, Neural Network and Fuzzy Systems, Probability Model and Stochastic Processes

## SKILL SUMMARY

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- Languages: C, C++, Java, SQL, Intermediate proficiency in Python, Beginner proficiency in Golang
- Core Competency: Data Structures and Algorithms, Agile Methodologies
- Frameworks: Flask, REST/RESTful, Selenium, JUnit
- Platforms: Linux, Ubuntu, MySQL 5.7, Oracle DBMS, Sybase ASE/IQ, Beginner proficiency in HDFS and Spark
- CI/CD: Git/Github, Jenkins, Github CI
- Machine Learning: Neural Networks (CNN, RNN, LSTM/GRU), Pandas, Numpy, Scikit-Learn
- Statistical Methods: Hypothesis Testing, Point Estimation, Interval Estimation, Regression, Chi-Square Tests

## EMPLOYMENT HISTORY

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**Software Engineering Intern, Zuora, Remote, United States** May 2022 - August 2022

- Built a python tool for migrating live database from a multi tenant to single tenant per schema architecture
- End of migration projected a decrease in server load by 13% and increase in customer satisfiability by 28%
- Developed a batch reader and writer for the initial dump of data and added binlog streaming of events
- Binlog events were used to track the changes during the initial dump and post the changes to target database
- Technologies Used: Python (Mysql-Replication, PyMySQL), MySQL

**Specialist Software Engineer, Société Générale, Bengaluru, KA, India** July 2018 - August 2021

- Developed OCR platform based upon Tesseract which replaced Abbyy, saving costs of around EUR 58K
- Built a web-automation tool replacing Automation Anywhere across BUs, saving license costs by EUR 21K
- Implemented Non Regression Test suite using Cucumber, reducing production incidents by 45%
- Responsible for enhancement of a JAVA based application processing > 1M trades per day for reporting purpose
- Developed and enhanced Data Services to serve internal clients across regulatory perimeter
- Migrated Eliot Web Oriented REST services for regulatory perimeter to get full ownership of the application
- Followed agile methodologies and regularly worked with onshore counterparts as well
- Technologies Used: JAVA, REST Services, SQL, Python, JUnit, Linux, Batch Jobs, Sybase, TIBCO EMS

## PROJECTS

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- **Unix v6 File System - Modified** October 2021 - December 2021
  - Scratch implementation of modified Unix V6 File System as part of CS 5348 OS Class Project
  - Phase 1: Initialization of the file system as a binary file in Unix environment and chaining of free blocks
  - Phase 2: Implementation of unix commands mkdir, cd, cpin(import a file), cpout(export file contents) and rm
  - Language Used: C Reference Material: The Design of The Unix Operating System, Maurice J. Bach
  - Project URL: <https://github.com/rajmishra1995/v6FileSystem>
- **CANN (C++ Artificial Neural Network)** January 2021 - August 2021
  - Built an autoencoder artificial neural network with Backpropagation learning in C++
  - Added features of loading and saving weights and biases and support for automated build with Github CI
  - Future Scope: Expanding the project to support different kinds of Neural Networks such as CNN and RNN
  - Project URL: <https://github.com/rajmishra1995/cann>

## ACHIEVEMENTS AND EXTRACURRICULARS

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- Secured 12th position in algorithmic programming competition conducted across Société Générale
- Mentored a group of 3 sophomores for algorithmic programming during my senior year at BIT Mesra
- Global rank of 37 in Codechef Snackdown 2016 Pre-Elimination Round B
- Core Leading members of organizing committee for on campus college festivals during undergrad
- High school topper for Chemistry and Mathematics in All India Senior School Certificate Examination, 2014