## **JAYITA ROY**

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## **EDUCATION**

## The University of Texas at Dallas

Master of Science: Computer science Expected Graduation: Dec 2021

Course Work: Machine Learning, Big Data and Analytics, Data Structure and Algorithm, Web Development, Database Design, NLP

West Bengal University of Technology - India

2011 - 2015 GPA: 8.72 / 10

Bachelor of Technology - Electronics and Communication Engineering

## **SKILLS**

- Languages: Java, Python, PL/SQL, Shell Scripting, SQL, HTML, CSS, JavaScript, JQuery, PHP
- Database Technologies: Oracle(9i,11g,12c), Oracle Golden Gate, SQLite, MySQL, MongoDB
- Frameworks & Packages: Django, Bootstrap, Node JS, Pandas, Numpy, Matplotlib, Scikit Learn, Hadoop, Spark, Kafka, NLTK
- Tools: SQL Developer, Oracle Enterprise Manager, Eclipse, Jupyter Notebook, Visual Studio Code

#### WORK HISTORY

# LinkedIn Corporation - Sunnyvale, CA

May 2021 - Present

## Software Engineer Intern

Designing & developing an automation framework by working on real-time monitoring of multiple code build jobs using daemons & time-series database; & generating metrics using graphs. Technologies used are Python (Flask), MySQL, Prometheus, Grafana.

## The University of Texas at Dallas- Dallas, TX

Sep 2020 - April 2021

## Computer science Grader

Working as a teaching assistant under UTD,CS Department. Helping CS undergraduate students with their course work, grading their assignments, projects and quizzes.

## The University of Texas at Dallas- Dallas, TX

## **Coding Instructor, Computer science outreach**

Oct 2019 - Aug 2020

Delivered engaging curriculum through diverse methods, including workshops during all the school breaks, week-long Summer Camps, after school coding classes and online learning systems.

## IBM - Bengaluru, India Nov 2015 - Jul 2019

## Database Administrator

- a. Worked as Primary Dev/Test/Production DBA for several large applications, Financial ERP, Business Intelligence, Business Objects.
- b. Was involved in the software development activities to implement backend code using SQL and PLSQL.
- c. Worked on Database configuration and set up, data migration, object level monitoring of databases, improving the performance of the application by SQL tuning, Database refresh activity, Users security, AWR report generation, Database health check, Backup monitoring.
- d. Worked on various shell scripts in order to automate several DB monitoring jobs such as automated DB Listener monitoring, automated password expiry alert notification, automated stats gathering and index rebuilding.
- e. Successfully configured Oracle Golden Gate software for real time data replication and automated job to monitor the process.

## **ACADEMIC PROJECTS**

- **1. DB Design Designing of Database Engine** Using Java and Object Oriented Programming implemented a database engine, a hybrid of MySQL and SQLite, which supports DDL, DML and VDL commands and operates from command line and API calls.
- **2. Machine Learning HandWritten Digit Recognition** Developed a Convolutional Neural Network model from scratch(without using existing libraries); trained it with MNIST data set in order to correctly identify handwritten digits. Did parameter tuning and analyzed the performance.
- **3. Big Data & Analytics Twitter Sentiment Analysis** Developed a Kafka model to pre-process and extract the LIVE tweets. Performed sentiment analysis on this using the TextBlob mechanism. Stored the results in ElasticSearch and displayed it over the Kibana visual dashboard using pyplots.
- 4. NLP Information Extraction Developed a rule based learning model to extract the template information from a given set of unstructured text documents.
- **5. DB Design Contact Management System** Designed and developed an application using Django framework to create a web interface to update, view, create & delete real world contact data.

- **6. Machine Learning Enhanced Gradient Descent** Developed a Machine Learning model by using linear regression. Implemented Stochastic Gradient Descent using Python from scratch with libraries and without any linear regression libraries, and did a comparative study on the effectiveness of both. And also implemented a small enhancement on top of that by using momentum.
- **7. Web Programming Language Online Comet Cart -** Developed an E-Commerce web application using HTML, CSS, JavaScript, AJAX, MongoDB, PHP. Implemented functionalities such as user authentication, list items, add/edit/update cart, checkout, order history, search items, filter items.

## **ACCOMPLISHMENTS**

"Eminence and Excellence Cash Award", IBM India Private Limited (WPP Account).	Nov. 2018
"Eminence and Excellence "Spark Award"", IBM India Private Limited.	Feb. 2019
"Automation Platforms Development: IBM Partner Award", IBM India Private Limited - (AT&T)	Feb 2018
"The Best Of IBM!", IBM India Private Limited	June 2017

## **CERTIFICATIONS**

Python for Data Science, IBM
Data Science Foundations – Level 1, IBM
Enterprise Design Thinking Practitioner, IBM
Oracle 11g Fundamentals, Oracle
Easy to Advanced Data Structure, Course by UDEMY

## **EXTRA-CURRICULAR ACTIVITIES**

- Participated in a three days workshop on "Entrepreneurship Awareness Camp" sponsored by Department of Science & Technology, Govt. of West Bengal, India.
- Volunteered at Metro Dallas Homeless Alliance Conducted short survey interviews with persons experiencing homelessness at Austin street center in Dallas. And store their responses on Count us apps. This count, a requirement under Federal Law, helps communities understand the extent of homelessness, changing trends, and the measure of their success in making homelessness rare, brief and nonrecurring.

## **ACTIVITIES AND SOCIETIES**

- 1. Officer Grads Computer Science at UTD
- 2. Marketing Chair SBS (Student Organization) at UTD
- 3. Member ACM (The Association for Computing Machinery) at UTD
- 4. Member SWE at UTD