Mitesh Anil Agarwal

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EDUCATION

North Carolina State University, NC, USA   August 2023 – May 2025
Master of Computer Science **| CGPA: 4.0/4.0 |**
Relevant Courses: Design and Analysis of Algorithms, Automated Learning and Data Analysis, Software Engineering

University of Mumbai, India   August 2017 – May 2021
Bachelor of Engineering in Information Technology **| CGPA: 9.32/10 or 3.8/4.0 |**
Relevant Courses: Data Structures and Algorithms, Web Development, Operating Systems, Database Management System

TECHNICAL SKILLS

Programming Languages: C, C++, Python, HTML, CSS, JavaScript, SQL
Databases: MySQL, Oracle, MongoDB, PostgreSQL
Software & Frameworks: Apache Hadoop, Hive, Spark, Kafka, Shell Scripting, ReactJS, NodeJS, Git, Jenkins, Continuous Integration and Continuous Delivery
Cloud Platforms: Microsoft Azure, Google Cloud, Amazon Web Services

PROFESSIONAL EXPERIENCE

North Carolina State University, Graduate Teaching Assistant, Raleigh, USA   September 2023 – Present
- Assisting students through personalized support and mentorship during lab and doubt sessions in courses Database Management System and Data Engineering in a class of **50** students under professor Dr. Sherry Fowler.

Capgemini, **Software Engineer,** Mumbai, India   June 2021 – June 2023
- Developed and maintained data pipelines to ingest **Batch** and **Streaming** software applications data using **ETL** process using technologies such as Apache **Hive**, Kafka, Apache **Hadoop**, **Oozie** increasing overall efficiency by **40%**.
- Build and released CI/CD pipelines using **Git** and **Jenkins** to deliver high-quality software applications.
- Contributed towards project management, conducting reviews, and providing feedback using Agile methodologies - **Scrum** and **Jira** etc. thereby reducing manual intervention by almost **60%.**
- Consumed various **AWS** services such as **Glue**, **DynamoDB**, **S3** to automate data extraction, transformation, and loading processes, improving data quality.

Sahu Technologies, **Web Developer Intern,** Mumbai, India   December 2020 – January 2021
- Successfully utilized **NodeJS** and **Express** frameworks for server-side development, implementing **RESTful** APIs to enable communication between the server and the client.
- Spearheaded the development and maintenance of web applications using **HTML**, **CSS**, and **JavaScript**, following best practices and design patterns.

Intelligence Node, **Data Quality Intern,** Mumbai, India   June 2019 – July 2019
- Conducted data analysis and performed data profiling to identify data quality issues, ensuring the accuracy, completeness, and consistency of data.
- Utilized **SQL** to query the data and perform data validation, ensuring compliance with data standards.

PROJECTS

AI Image Generation using ChatGPT – Web Development   May 2023 – July 2023
- Consumed **ChatGPT** APIs to develop a Web App capable of generating images based on user's input description using **Nodejs** and **Express** serving as the backend.
- Image Generation process is based on OpenAI's Dall-E model which uses generative models based on deep learning.

Image Captioning – Machine Learning   June 2020 – May 2021
- Pioneered an Image Captioning application by training a **CNN** model using transfer learning on pretrained **VGG**-**16** architecture to extract image feature vectors.
- Incorporated a language-based model, **LSTM**, to generate descriptive textual representations from input image with an accuracy of **93%** and used **Flask** to deploy the model as a web app.

Weather App - Web Development ([mitesh24100.github.io/Weather-App](#)**)**   September 2020 – November 2020
- Designed and executed a dynamic Weather App driven by **API** integration delivering real-time weather forecasts to the users.
- Conceptualized an intuitive user interface to seamlessly retrieve and exhibit weather for user-specified locations.

Student Attendance and Management System – Web Development   August 2019 – March 2020
- Developed a user-friendly interface for teachers and students to manage attendance, view timetables, and access course materials and implemented a database in **MySQL** to store and manage student and course data.

CERTIFICATIONS

- Microsoft Certified Azure Fundamentals (AZ – 900)
- Microsoft Certified Data Fundamentals (DP – 900)
- Google Cloud Certified Digital Leader