

SASHANK MACHIRAJU

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EDUCATION

NORTHEASTERN UNIVERSITY

BOSTON, MA

Master Of Science in Information Systems

Dec 2024

Relevant Coursework: Application Engineering and Development, Data Management and Database Design, Designing Data Architectures for Business Intelligence, Web Development & User Experience,

BITS PILANI, DUBAI CAMPUS

DUBAI, UAE

Bachelor Of Engineering in Computer Science

Jul 2022

Relevant Coursework: Fundamentals of Data Science, Data Mining, Database Management Systems, Algorithm analysis

TECHNICAL SKILLS

Programming Languages: Java, Python, SQL, JavaScript

Web Technologies: HTML, CSS, Angular, ReactJS, NodeJS

Databases: MongoDB, PostgreSQL, MySQL, Microsoft SQL Server, Amazon S3

Data Tools and Visualization: Power BI, Tableau, Alteryx, Talend Studio, Azure Data Factory, Snowflake, Apache Spark

Cloud & DevOps: AWS (EC2, RDS, Lambda, EventBridge), GitHub Actions, CI/CD, Gunicorn

Frameworks & Libraries: Pandas, SciPy, Scikit-Learn, TensorFlow, OpenCV

EXPERIENCE

EASYBEE AI

BOSTON, MA

AI Engineer Co-Op

Aug 2024 - Present

- Developed advanced chat and voice agents using Python and OpenAI SDK, enhancing customer interaction and response time
- Built a CI/CD pipeline with GitHub Actions and deployed applications on AWS using Gunicorn, streamlining the deployment
- Implemented a vector database for semantic image retrieval, enhancing the precision of search results.
- Designed a RAG pipeline architecture to efficiently manage and retrieve information from large knowledge bases
- Configured AWS services including EC2, RDS, Lambda, and EventBridge to ensure scalable and reliable cloud infrastructure

AL SAGR NATIONAL INSURANCE COMPANY

DUBAI, UAE

Web Development Intern

Jan 2022 - Jul 2022

- Led the deployment of a web application in a team of four, enhancing operational efficiency and customer satisfaction by 30%
- Developed Crystal Reports for health and motor insurance claims, streamlining the distribution of 100+ daily reports to clients.
- Enhanced the user interface by integrating JavaScript, React, and Angular, reducing redundant data on reports by 20% and improving internal operations.

VERUDIX SOFTWARE SOLUTIONS PVT LTD

HYDERABAD, INDIA

Data Analyst Intern

Jun 2020 - Aug 2020

- Spearheaded the implementation of sentiment analysis algorithms using Twitter API (Prediction of election results in the Bihar State Legislative Assembly Elections 2020). Also implemented a model retrain feature that used the latest tweets in a 24-hour window
- Utilized data obtained from the algorithm to create real-time visualization models to show tweet trends and sentiments.

ACADEMIC PROJECTS

IMDB MOVIES DATA ETL & BI REPORTING

BOSTON, MA

NORTHEASTERN UNIVERSITY

Dec 2023

- Collaborated with a team of 3 to implement a end-to-end data pipeline for ETL using Talend Studio & Apache Spark. Data profiling achieved using Alteryx.
- Incorporated MySQL database and Microsoft Azure Database to stage & load the data.
- Streamlined data integrity processes and reduced data redundancy by employing SCD and handling data rejects.
- Visualized the data loaded and transformed in PowerBI and Tableau for analytics to answer essential BI questions.

FACE MASK DETECTION USING KERAS, OPENCV AND TENSORFLOW

DUBAI, UAE

IEEE

Sept 2021 - Dec 2021

- Pre-processed and augmented a dataset of 10000+ labelled images containing faces with and without masks.
- Implemented MobileNetV2 architecture for efficient feature extraction and classification
- Constructed a real-time face mask detection system using OpenCV for video stream processing
- Publication: Face Mask Detection using Keras, OpenCV and TensorFlow (Paper ID: 916) IEEE Xplore