

SATHWIK REDDY VELMALA

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WORK EXPERIENCE

Software Developer - SAFERTEK IT SOLUTIONS PVT LTD

Feb 2021 – Dec 2022

- Developed a web ERP product UWareOne using **Python** and **Django-Rest framework** to enable seamless integration with third-party services, supporting over 10,000 users and boosting efficiency by 30%.
- Accelerated development of beta version through **agile processes** including sprint planning and daily stand-ups, cutting deployment times by 40% and improving performance and user experience by 30%.
- Led a cross-functional team in **migrating** 99% of complex data structures from **SQL Server** to **MariaDB**, ensuring data integrity and minimal downtime by schema normalization.
- Implemented **caching mechanisms** and **database indexing** strategies to improve query performance by 60% and reduce the server load by 40%. Performed **Unit Testing** on the code developed on a timely basis.
- Designed and deployed **reports** and **dashboards** using **SSRS**, **Tableau**, and Python libraries (**Seaborn**, **Matplotlib**), enabling data-driven decisions for stakeholders and boosting customer satisfaction by 35%.
- Collaborated with development teams to integrate analytics tools with UWareOne, optimizing performance to handle large datasets, which led to a 50% reduction in data latency and enhanced user experience.

Data Analyst – Gitcore Solutions PVT LTD

Dec 2019 – July 2020

- Analysed data using statistical techniques and tools like Python, PowerBi and Excel to discover trends and patterns in data for data-driven conclusions, resulting in a 15% increase in process efficiency.
- Ensured data integrity by checking for errors, missing values, and inconsistencies and documenting any issues found, thereby increasing the data accuracy by over 40%.

SKILLS AND CERTIFICATIONS

- Database and Client/Server Technologies:** RESTful APIs, MariaDB, NoSQL, MySQL, SQL Server
- Programming Languages:** Python, C, Java, C#, JavaScript, Matlab, SQL
- Web and Big Data Frameworks:** HTML, CSS, Django, Flask, jQuery, Apache Spark, Hadoop
- Machine Learning and Deep Learning:** Keras, TensorFlow, PyTorch, NumPy, Pandas, OpenCV, sci-kit-learn, Convolutional Neural Networks, Natural Language Processing, Dlib, seaborn, Matplotlib, SciPy.
- Data Visualization and Reporting Tools:** Tableau, Microsoft PowerBi, Microsoft Excel, SSRS
- Cloud platforms and Version Control:** Google Cloud Platform, Microsoft Azure, AWS, Git
- Google Cloud Platform Certification** in Architecting with Google Compute Engine

EDUCATION

University of Houston

Houston, TX

Master of Science in Engineering Data Science

May 2024

- CGPA: 3.65/4
- Related Coursework: Python Programming, Data Analytics and Visualization, Relational Databases, Data Engineering using ETL, Machine Learning model building.

PROJECTS

R-CNN Object Detection with Machine Learning | Python, TensorFlow, Keras

- Engineered machine learning algorithms using **TensorFlow** shipped with **Python** and its different libraries.
- Created a software model for machine learning algorithms through **Keras API** to detect and get an accurate location of objects in an image via image analysis and non-maxima suppression algorithms respectively.

Analysis and Prediction of Disaster Tweets | Python, AWS, Flask, WinSCP, Putty

- Analysed** 10k tweets in CSV data format and generated the best model for reviewed data after data preprocessing to reduce downtime and increase efficiency.
- Saved the model in **Amazon S3**. A web application created via **Flask** is uploaded into an **Amazon EC2 instance** and presented locally using **WinSCP** and **Putty** respectively.

Facial Reconstruction System | Python, OpenCV, Dlib

- Engineered a Facial Reconstruction System utilizing **Python** and **OpenCV**, employing advanced image processing techniques to perform sophisticated image morphing.
- Implemented a cutting-edge facial reconstruction model using **Laplacian** and **Gaussian methods** for image restoration and **Python & Dlib** library to regenerate disfigured facial images.

Video Game Sales Analysis | Python, Tableau

- Collaborated on a project to analyze video game sales data using **Python** and **Tableau** Dashboards.