Karthik Minupala

+1 (623) 340-8701 | kminupal@asu.edu | https://github.com/karthik183| https:// https://in.linkedin.com/in/minupala-karthik-732563bb

EDUCATION

Master of Computer Science, **Arizona State University**, *Tempe, AZ*   Aug 2023 – Dec 2024
Courses: Introduction to Digital Image Processing, Human computer Interaction, Foundation of Algorithms
Bachelor of Technology, **Indian Institute of Technology Bhubaneswar**, *India*   Aug 2014 - Jun 2018
Courses: Programming and Data Structures, Computer Networks, Operating Systems, Database Systems

TECHNICAL SKILLS

Languages and Databases	Python, R, C++, C, HTML, Teradata, Oracle, MySQL, Snowflake, Presto
Libraries and Frameworks	Scikit Learn, PyTorch, TensorFlow, MLops, NLP, GCP, Power BI
Location Tools	Anaconda, DevOps, GitLab, Bitbucket, CLM, Postman
Certifications	Coursera certified SQL Developer, Azure Data Engineer, DA-100

WORK EXPERIENCE

Data Scientist II- ORMAE, Bangalore, India   Oct 2022 - Aug 2023
Time Series Forecasting of foot traffic on ecommerce site
  Technologies: Python, Snowflake, Apache Airflow, Amazon Web Services (Elastic Search, sage maker)
● Created an application for daily monitoring of actual traffic and predictions. Automated the process by developing log-generating scripts **saving 30 man-days** of developer effort per year
● Achieved **18% MAPE, 86% accuracy**, and 85% reliability for foot traffic on prime ecommerce sites which are the best in the industry.

Predictive maintenance model for spark plugs
  Technologies: Python, R,, PyTorch, Snowflake, Apache Airflow, Spark Jenkins, AWS (Redshift, S3)
● Applied decision trees, topic modeling, and sentiment analysis to sizable datasets, identifying automotive **system root cause of failures**, proposing priority improvements, and achieving a **proactive 30% reduction in failure rate**.
● Deployed models in an **Azure DevOps** environment for continuous monitoring and real-time predictions, collaborating with stakeholders to develop actionable insights and enhance reliability and annual cost savings of $8 million. with **F1 score of 93%.**
● Conducted A/B testing to evaluate pricing models (tiered vs. flat rate) for an automobile service subscription in a dealership, leading to a **28% increase in customer retention** and improved revenue growth.

Software Engineer II– MAQ Software, Hyderabad, India   Sep 2018 - Sep 2022

Capacity performance Optimization and Governance, PepsiCo
  Technologies: Python, Power BI, Power Automate. Power Apps
● Analyzed ~25 data models that were consuming enormous resources while querying and refreshing
● Created usage report which has details of the workspace, dataset and reports at a tenant level, which helps in identifying most used reports, zero usage reports.
● Created Dashboards with PLT of 7s using Bookmarks and Lazy Loading.
● Stored historical Capacity Gen 2 metrics in SharePoint Lists and subsequently migrated the data from SharePoint Lists to a SQL database using Power Automate.
● Designed and scheduled Power Automate flows to dump the data from Gen 2 App to SQL DB which reduced manual working hours by 35 per month.

Loan Default Prediction
  Technologies: Python, PyTorch, Tensorflow, Spark
● Streamlined the dataset by eliminating redundant features and imputing missing values to enhance its stability.
● Additionally, addressed the issue of class imbalance through oversampling the minority class and standardized the categorical features.
● Achieved **F1 score of 82.45 with SD 2.14**

ACADEMIC PROJECTS

● **Database Systems (Java, JDBC, MySQL) -** Designed a scalable database for a Hotel Management System in MariaDB which performs end-to-end functionalities of customers and employees with GUI developed in Java
● **Fashion MNIST Classification: Improved Convolutional Neural Network Model:** Improved accuracy for Fashion MNIST classification by 9% utilizing batch normalization, dropout, regularization, data augmentation.

ACTIVITIES AND ACHIEVEMENTS

● Received **Best Employee Award in 2021** in MAQ for deployment of quantitative assessment of Capacity Performance.