VISHNU CHOUNDUR

Memphis, TN

+1 (901) 275-6893
choundurvishnu99@gmail.com
GitHub
LinkedIn

EDUCATION

University of Memphis, Memphis, USA — May 2024
Masters in Data Science

- GPA: 3.68/4.0
- Relevant Coursework: Data Science, Statistical Learning, Advance Machine Learning, Deep Learning, Database Management, Artificial Intelligence.

PROFESSIONAL EXPERIENCE

People Tech Group Inc — Redmond, WA
Intern — Sept 2024– Nov 2024

- Designed and deployed scalable Azure Data Factory (ADF) pipelines for ETL processes, integrating data from Azure SQL, Blob Storage, and Data Warehouse.
- Implemented Azure Machine Learning for predictive analytics and Azure Databricks for scalable data processing.
- Built machine learning regression models (e.g., Decision Trees, Support Vector Machines, Random Forest) to predict applicant risk levels, refining accuracy using Grid Search over cleaned data.
- Identified opportunities for automation in data validation and transformation using Python and Azure Data Factory.
- Conducted data cleaning, visualization, information retrieval, and feature engineering using Python libraries (e.g., Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn).
- Engineered raw data by imputation, normalization, and scaling, converting categorical variables into numerical values for improved exploratory data analysis (EDA) and machine learning model readability.
- Analyzed feature relationships and risk factors through univariate, bivariate, and multivariate analysis techniques.

The University of Memphis — Memphis, TN
Technical Assistant — August 2022– Nov 2023

- Served as a Technical Assistant, focusing on resolving technical issues for university websites. Managed the helpdesk ticketing system and responded to customer inquiries, ensuring timely resolution of issues.
- Provided expert assistance to clients in troubleshooting complex technical problems, utilizing a solid technical background and strong problem-solving skills.
- Contributed significantly to diagnosing and resolving technical challenges, offering exceptional support and guidance to enhance user experience and operational efficiency.

Accenture Solutions Private Limited — Chennai, India
Associate Software Engineer — October 2021–July 2022

- Experienced in Jenkins by installing, configuring and maintaining for purpose of continuous integration (CI) and for end-to-end automation for all build and deployment and creating Jenkins CI pipeline.
- Refined the backend database system using Java and SQL, improving data processing efficiency by 50% through optimized queries, enhanced schema design, and effective indexing strategies.
- Involved in implementing the changes in user interfaces using HTML5, CSS3, JavaScript, React JS.
- Experienced in branching, merging and maintaining the versions using SCM tools like Git and GitHub on windows and Linux platforms.
- Used Docker for creating Docker images for launching containers on AWS EC2
- Used SOAP UI, Postman, Swagger for testing the Web services
- Developed and executed test cases for Java backend code built with Spring MVC and Spring Boot, ensuring robust functionality and identifying potential issues in the system through comprehensive unit and integration testing.
- Designed and developed microservices using Spring Boot to modularize the application into distinct business components, enhancing scalability, maintainability, and development efficiency.
- Utilized Mongo Db as a database and worked with store non-relational data into collection.
- Adopted Agile methodology to build the application iteratively and incrementally, actively participating in Scrum activities and daily stand-up meetings to ensure continuous progress and alignment with project goals.

Accenture Solutions Private Limited Chennai, India
Internship June 2021–October 2021

- Gained proficiency in Core Java, Git, Spring boot, AWS, front end tools such as JSP, React, and databases like H2-database, MySQL and MongoDB.
- Developed and deployed full stack Java project utilizing Spring and MVC frameworks for the application.
- Designed and implemented REST APIs using Spring MVC and REST Controllers, efficiently generating XML data formats for seamless client-server communication.
- Utilized MySQL as the backend database, actively contributing to the development of stored procedures to optimize data processing and ensure efficient database operations.
- Created Maven scripts to build and deploy the application.

Internshala Trainings Hyderabad, India
Internship April 2020 – May 2020

- Developed a predictive model for Credit Card Fraud detection using machine learning algorithms to identify and prevent credit card fraud.
- Conducted exploratory data analysis to identify patterns and trends indicative of fraudulent activities. Achieved a more accuracy rate in identifying fraudulent transactions.
- Handling missing data using the imputation method, encode categorical features. Utilize techniques like grid search for efficient tuning to optimize hyperparameters to enhance model performance.
- Evaluate the model using various metrics, including precision, recall, F1-score, and Area under Curve (AUC-ROC).
- Deploy the model in a production environment, integrating it into the credit card transaction processing system.
- Implement a feedback loop for continuous model improvement based on new data and evolving fraud patterns.

Sreenidhi Institute of Science Technology Hyderabad, India
Research Work June 2020 – July 2021

- I have worked on a project that composes Machine learning, Deep learning and Image Processing under the guidance of Dr. M. Purnachandra Rao [Phd, IIT Madras, Image Processing, Deep Learning].
- I have applied Machine learning, Deep learning algorithm on images and compared with Image processing techniques such as image enhancement and Image restoration.
- I have designed mini and major projects on Underwater image enhancement using image processing techniques and Low light image processing using Convolutional Neural Network.

TECHNICAL SKILLS

- **Programming Languages** : Java, Python, HTML5, CSS3, JavaScript, R Programming,
- **Databases** : MySQL, MongoDB, Oracle, Postgres
- **Data Tools** : Azure Data Factory, Azure Data Bricks, Azure SQL, Data Warehouse and Blob Storage, Azure MLFlow, Kafka.
- **Frameworks & Tools** : React JS, Spring, Juint, AWS, Azure
- **Mathematics** : Linear Algebra, Vector calculus, Optimization (CPLEX), Statistical test Such as Parametric Test, Non-Parametric Test, Hypothesis Testing.
- **Designing Software** : MATLAB, Kodular, Eclipse, Net Beans, Putty, Keil uVision
- **Operating System** : Window XP/7/10, Window Server Linux server, Unix server
- **Others Tools** : Software Development Life Cycle, Agile/Scrum Methodology, data Structure and Algorithms, Microservices and RESTful Web Services
- **DevOps Tools** : Jenkins, Ansible, Terraform, SonarQube, Unix/Linux, Git/Github, Kubernetes, Maven, Docker, Shell Scripting

PROJECTS

Neural Machine Translation Using MT5 Model Memphis, TN
Student, & Presentation Jan 2024 – May 2024

- Developed a Neural Machine Translation system using the MT5 model, fine-tuning it for high-accuracy multilingual text translations across multiple languages.
- Implemented advanced preprocessing techniques for handling tokenization, sentence segmentation, and low-resource language challenges, improving translation quality.
- Optimized model performance by hyperparameter tuning and leveraging parallelized training, achieving significant improvements in BLEU and accuracy scores.

House Price Prediction for Chennai Memphis, TN
Student, & Presentation Aug 2023 – Dec 2023

- Developed a house price prediction model for Chennai using Python, leveraging a comprehensive dataset with diverse features.
- Implemented and compared multiple models, including ANN, Linear Regression, Random Forest, Decision Tree, and Boosting techniques, to optimize prediction accuracy.
- Conducted feature engineering, hyperparameter tuning, and cross-validation to enhance model performance, achieving high predictive accuracy.

Bike Rental Count Prediction Using R Memphis, TN
Student, & Presentation Aug 2023 – Dec 2023

- Predicted bike rental counts using R, applying advanced regression techniques such as Linear Regression, Polynomial Regression, and models with interaction terms.
- Implemented feature selection methods, including Forward and Backward Subset Selection, and regularization techniques like Lasso and Ridge Regression.
- Built and optimized complex models such as Random Forest, Gradient Boosting Machine, and Neural Networks for accurate predictions.
- Performed statistical tests (ANOVA, t-tests) to validate model assumptions and assess the significance of predictors.

Classification of Mushroom Based on Physical Characteristics Memphis, TN
Student, & Presentation Jan 2023 – May 2023

- Employed the R programming language to build a robust classification model for mushrooms based on their physical characteristics, achieving high accuracy in differentiating edible and poisonous species.
- Conducted data preprocessing, feature selection, and exploratory data analysis to identify significant predictors of mushroom edibility.
- Trained and evaluated machine learning models (e.g., Decision Trees, Random Forests) to achieve high accuracy in classification.

Low Light Image Enhancement Using Convolutional Neural Network Hyderabad, India
Student, Research Paper & Presentation Jan 2021 – July 2021

- The project is about the transformation of low light images to enhanced images using Google Colaboratory notebook, Google Drive as tools and python
- Implement CNN and DNN techniques to increase the contrast, brightness, and resolution of images.
- We publish a journal in International Journal for Research in Applied Science and Engineering Technology [IJRASET] on Low Light Image Enhancement using CNN.
- Paper URL: https://doi.org/10.22214/ijraset.2021.35787

ADDITIONAL STRENGTHS

- Strong theoretical foundation in machine learning, statistics, and data analysis.
- Proven ability to deploy scalable data solutions and collaborate in multi-disciplinary teams.
- Knowledgeable in end-to-end ML pipelines, including data preprocessing, model deployment, and DevOps practices.