AMITHA AKEPATI

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LinkedIn – Amitha Akepati | GitHub – AAmitha | Portfolio Website – Amitha Akepati

Graduate Student at the University of Texas at Arlington with an interest in Python, Web Development, Problem Solving, MySQL, Machine Learning, Artificial Intelligence.

EDUCATION

- **Masters in Data Science**   Graduating: May 2024
  University of Texas at Arlington, Arlington, Texas
  Relevant Coursework: Data Science, Foundation of Computing, Data Science Project Management, Data Mining, Artificial Intelligence, Machine Learning, Probability and Statistics.

- **Bachelor of Engineering in Computer Science**   June 2017 - July 2021
  Annamacharya Institute of Technology and Sciences, Rajampet, Andhra Pradesh, India
  Relevant Coursework: Software Engineering, Web Technologies[HTML/CSS], Data Structures and Algorithms, C, Data Mining and Data Warehousing, Operating Systems, Big Data, Software Project management, Python, MySQL, Data Analysis and Algorithms, Computer Networks.

TECHNICAL SKILLS

Languages	Python, C ,MySQL, SQLite3, HTML/CSS, JavaScript, Golang, PHP
ML Toolkits	NumPy, Pandas, Matplotlib
Application Software	Android Studio, Arduino, GIT
Tools & Platforms	HPSB (Hewlett Packard Service Bus) Middleware Tool, Visual-Studio, PyCharm, Anaconda, Jupiter Notebook, Microsoft tools[Excel, Word, Power point], GitHub
Cloud Platform	Azure

Knowledge in Data Structures and Algorithms, Machine Learning algorithms – Classification, Regression, Clustering, Statistical analysis and Visualization, Artificial Intelligence.

PROFESSIONAL EXPERIENCE

- **Graduate Research Assistant –** University of Texas at Arlington   Oct 2023 – Present
  - Assisting Dr. Aera Kim Leboulluec on Generative AI – Agriculture Research
  - Working on research paper related to Agriculture - soil health check and crop can be recommended based on climatic changes and price prediction of specific crop. Developing predictive models for crop yield using weather and soil data and found that accuracy is improving by 15% over previous models.

- **Software Engineer –** DXC Technology   June 2021-Aug 2022
  - Built a Python-based scalable file transfer system capable of handling large volumes of data securely between B2B data exchange.
  - Employed cutting-edge protocols like SFTP, and FTPS to safeguard data during transfers and reduced average file transfer time by 35% with this transfer protocols and authenticate connections using SSH keys.
  - Automated data processing and established network resilience with Python Script [failover mechanisms]. Integrated analytics for insights and managed anomalous activities.
  - Mentored two junior engineers in Python best practices for security, stability, and extensibility of the service and effectively managed anomalous activities, demonstrating leadership and teamwork skills.

PROJECTS

- **Personalized Travel Companion: An Intelligent Conversational Agent for Trip Planning**   Dec 2019
  - Hackathon Smart Bridge in collaboration with IBM.
  - Developed a chatbot using IBM Watson to simplify travel planning. Demonstrated chatbot to 100+ users at hackathon and received positive feedback on usability from 80% of testers.

- **AI Pandemic Support: Real-Time Face Mask Detection with CNN & Deep Learning**   MAY – JULY 2021
  - Python, NumPy, Pandas, Matplotlib, Scikit-learn, Seaborn, OpenCV, TensorFlow, Keras.
  - During Pandemic addressed a critical challenge by creating a real-time face mask detection model using CNN.
  - Achieved impressive model accuracy with 93.88% and an F1 score of 0.94, showcasing deep learning expertise that detects mask as object.
  - Demonstrated practical applications in real-time mask detection, with potential uses beyond the pandemic context.

- **Exploratory Analysis and Predictive Modelling**   APRIL 2023
  - Python, NumPy, Pandas, Matplotlib, Machine Learning – Regression Techniques.
  - Performed Exploratory Data Analysis(EDA) on Auto dataset using Pandas, NumPy, Matplotlib and developed data visualizations with Seaborn to identify patterns in data.
  - Developed regression models to predict continuous variables, compared performance of regression techniques, evaluated model performance using metrics R-squared of 0.82, RMSE and created analysis report.

- **Intelligent Indian Railway Reservation System with Python and SQLite3**   MAY 2023
  - Python, SQLite3, Data Structures and Algorithms.
  - Developed a Python GUI resulting in a 25% increase in user satisfaction for booking train tickets and managing reservations.
  - Achieved 98% data integrity with SQLite3 database to efficiently store and retrieve train schedules, ticket availability, and customer reservations and dynamic queries to check ticket availability based on travel date, source, destination, and train preferences.

CERTIFICATIONS

- HackerRank Python, Problem Solving   June - 2020
- Microsoft Azure Fundamentals – AZ900   June - 2020
- Python for Data Science Cognitive class by IBM   Dec - 2021
- Forage virtual internship PowerBI by PWC   May - 2023
- Alteryx Designer Core   July – 2023 to 2025