Radhakrishna Vempati

linkedin.com/in/radhakrishna | Personal Website

Education

University of California, Irvine 4.0 GPA

B.S. in Computer Science *September 2022 – Expected January 2025*

- **Selected Courses:** Machine Learning and Data-Mining, Database and Web App, Intermediate Python Programming, Data Management, Data Structure, Programming in C/C++, Computer Organization
- **Dean's Honors List**

Experience

Software Engineering Intern June 2022 – August 2022, June 2023 – September 2023

GhangorCloud *San Jose, CA*

- Configured MongoDB for the project, including defining crucial settings and security measures, and played a key role in designing the database schema by creating and structuring tables to facilitate efficient data management
- Contributed to the development of a dedicated webpage aimed at streamlining communication between employees and clients for subscription renewal purposes, enhancing efficiency through email automation
- Worked on developing licensing design documentation and updating project specifications, crucial for the webpage design project

Projects

ML Diabetes Readmission Predictor | *Python, Git* March 2023 – June 2023

- Preprocessed the Diabetes 130-US Hospitals dataset by employing encoding techniques, such as OneHotEncoding, Feature Hashing, and Ordinal Encoding
- Implemented advanced machine learning models, including Random Forests, FeedForward Neural Networks, and Logistic Regression to preprocessed dataset
- Experimented on model hyperparameters through visualization, evaluating accuracies and to achieve strong predictions of patient readmission probabilities

Bacteria Growth Tracker | *Python* July 2023 – September 2023

- Developed a software solution for the precise analysis of bacteria growth in video datasets through preprocessing methods including dimension reduction, noise reduction, and Gaussian blur
- Employed image segmentation and thresholding techniques from the OpenCV framework to accurately delineate bacteria contours
- Implemented sophisticated contour data analysis techniques to mitigate contour detection errors, significantly enhancing the accuracy of bacteria identification processes

IoT Device, Project Farmoid | *AWS, C++, postgresql, Git* December 2021 – June 2022

- Designed prototypes by experimenting with different models to reduce the product's size and ensure long durability
- Coded solutions to establish IoT device and network connectivity, utilizing AWS IoT Core and other technologies
- Achieved recognition as Uber Global Hackathon finalists and secured 1st place in STEMist Hackathon for our IoT device prototype and design

Network Migration Scripts | *Java, Python, R* May 2021, June 2022

- Constructed network automation scripts through Python and Java for a global enterprise to assist with migration
- Efficiently generated network schemas and IP subnets, saving hours of manual effort to create the schemas
- Automated network device configurations by constructing instructions for IP networks through writing configuration code as applicable to each IP subnet/space

Unhealthy Air Quality | *Python* September 2022 - October 2022

- Utilized PurpleAir's API to detect AQI exceeding user-defined thresholds at any location within the country
- Utilized Nominatim API to retrieve coordinates for identifying and displaying locations with unhealthy air quality
- Integrated both above APIs together, generating comprehensive outputs based on user inputs such as coord location, radius, number of locations to display, and AQI threshold, providing specific air quality output report

Technical Skills

Languages: Java, Python, C, C++, SQL, Swift, JavaScript, HTML, React, Typescript
Developer Tools: Github, VS Code, PyCharm, Eclipse, AWS Console, Docker, Google Colab, Jupyter Notebook
Libraries/Frameworks: Pandas, NumPy, Matplotlib, OpenCV, TensorFlow, Git, Scikit-Learn