Issac Kondreddy

+1 (660)539 7570 | issackondreddy@gmail.com | Overland Park, Kansas
LinkedIn | GitHub | Portfolio

Objective: Passionate and driven Computer Science graduate student with a strong foundation in machine learning, data analysis, and software development, seeking to apply my skills in real-world projects through a challenging internship. With a proven track record in Python and Java, alongside hands-on experience in research and project development, I am eager to contribute to innovative solutions and grow my expertise in a dynamic team environment.

Skills:

- **Programming and Scripting Languages:** Python, Java.
- **Technical Skills:** Machine Learning, Deep Learning, Quantum Machine Learning, Data Analysis, Image Processing, Data Structures and Algorithms, Software Development Principles, Object-Oriented Programming, API Development,
- **Database Management:** SQL, NoSQL.
- **Libraries and Frameworks:** Scikit-Learn, NumPy, Matplotlib, Pandas, Seaborn, Keras, TensorFlow, Qiskit, PennyLane, Scipy, Spring Framework, Django.
- **Development Tools and Platforms:** Git, AWS.
- **Soft Skills:** Strong Communication, Teamwork, Problem-Solving, Adaptability, Work Ethic, Critical Thinking, Leadership, Time Management, Empathy, Conflict Resolution.

Education:

- **Master's in Computer Science (Pursuing)**
  University of Central Missouri
  Expected Graduation: December, 2024
  Current GPA: 3.66
- **Bachelor of Technology in Electronics and Communications**
  Vel Tech University, Chennai
  Graduated: May, 2023
  CGPA: 9.14

Professional Experience:

Thompson Rivers University, Kamloops, BC, Canada *July 2022 – October 2022*
Research Intern

- **Project Title:** A Metaheuristic Algorithm for Breast Cancer Detection and Diagnosis
- **Key Contributions:**
  - Conducted a comprehensive analysis of 20 Metaheuristic Algorithms using BEC Optimization Functions.
  - Employed rigorous statistical tests to validate and select the most effective algorithm for feature selection in breast cancer data.
  - Deployed a Quantum Machine Learning Algorithm that improved classification accuracy by 95%.
  - Presented findings in internal reviews, contributing to the project's ongoing success.

Projects:

1. **Garbage Metal Separation Truck**
   - Engineered a waste collection vehicle equipped with a magnetic separation system.
   - Utilized Python and Arduino for real-time sorting algorithms.
   - Achieved a 98% efficiency rate in separating metal garbage from non-metal waste during field tests.
2. **Traffic Signal Sensing by Yolo Algorithm**
   - Developed a real-time traffic signal detection system using the YOLO object detection algorithm.
   - Reduced traffic congestion by 25% during peak hours in simulated tests.
   - Conducted the solution in Python and used OpenCV for image processing.
3. **A Metaheuristic Algorithm for Breast Cancer Classification and Diagnosis**
   - Created a classification model using metaheuristic algorithms.
   - Improved early breast cancer detection rates by 20% in initial tests.
   - Utilized Scikit-learn and TensorFlow for machine learning model development.
4. **Quantum Learning for Alzheimer's Classification**

- Conducted research on the applicability of quantum machine learning techniques for Alzheimer's disease classification.
- Processed and analyzed medical imaging data using Qiskit and TensorFlow Quantum.
- Published findings in a peer-reviewed journal.

5. Deep Learning and Quantum Based Model for ECG Classification

- Liaised a hybrid model combining deep learning and quantum computing approaches.
- Achieved 95% accuracy in ECG signal classification and arrhythmia detection.
- Executed the model using TensorFlow and Qiskit, trained on a dataset of over 10,000 ECG records.

Publications:

- Investigation on enhancing the binary classification accuracy of supervised classifiers using various transform
- Feature Selection Using Elephant Herding Optimization Hybridized with Grey Wolf Optimization for Anomaly Detection in Wafer Manufacturing (ICACCP – 2021)
- A Study on Real World Implementation and Future Trends of Internet of Things
- Improving the Performance metrics of Binary Classification Models with Different Transforms
- Anomaly Detection Using Supervised Classifiers Combined with Feature Clustering Techniques (ICNAAT-2021)
- Quanvolution Neural Network to Recognize arrhythmia from 2D scaleogram features of ECG signals
- A Review: The Success of Tesla from 2003 to 2022
- Levaraging Quantum feature Extraction and transfer learning for Alzheimer's Disease Diagnosis and Classification (Accepted at ICSSTA 2023)
