Issac Kondreddy

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LinkedIn | GitHub | Portfolio

Skills and Expertise:

Programming Languages:	Advanced: Python; Intermediate: Java; Basic: C, C++, R
Machine Learning & AI:	Machine Learning Techniques, Deep Learning Techniques, Quantum ML, Evolutionary Algorithms
Data Science:	Data Analysis, Image Processing
Software Engineering:	Data Structures, Algorithms, Object-Oriented Programming (OOP)
Database Management:	SQL
Libraries/Frameworks:	Scikit-Learn, NumPy, Matplotlib, Pandas, Keras, TensorFlow, Qiskit, Django
Tools:	Git/GitHub

Education:

- **M.Sc. Computer Science (Pursuing)**, University of Central Missouri GPA: 3.5 *Focus:* Machine learning
- **B.Tech. Electronics and Communications**, Vel Tech University, Chennai, May 2023. CGPA: 9.14. *Accomplishments:* Served as IEEE SPS Student President.

Internship Experience:

Mitacs Globallink Research Internship, Canada *July 2022 – October 2022*
Research Intern

- Developed a Metaheuristic Algorithm for Breast Cancer Detection using ML techniques, achieving 95% accuracy in diagnosing early-stage cancers, improving diagnostic speed by 30%.
- Analyzed 20 Metaheuristic Algorithms for BEC Optimization, conducting in-depth statistical validation.
- Implemented a Quantum ML Algorithm, boosting classification accuracy to 95%.

Projects:

1. Traffic Signal Detection with YOLO Algorithm *Technologies: ML, DL, Python, OpenCV, TensorFlow*

- Designed YOLO-based system for real-time traffic signal detection, trained on 5,000+ images, reducing congestion by 20%.
- Achieved 80% prediction accuracy using Python, OpenCV, TensorFlow.

2. Quantum Learning for Alzheimer's Disease Classification *Technologies: Quantum ML, Qiskit, TensorFlow Quantum*

- Conducted quantum ML research on Alzheimer's classification, analyzing 10,000+ medical images, improving classification precision by 15%.
- Published research findings in a reputable journal, cited 30+ times, contributing significantly to advancements in quantum computing and neurological disease understanding.

3. Hybrid Deep Learning & Quantum Model for ECG Classification *Technologies: DL, Quantum Computing, TensorFlow, Qiskit*

- Developed hybrid DL and quantum computing model for advanced ECG signal classification and arrhythmia detection with 50,000 samples in CSV format.
- Achieved 95% accuracy in cardiac arrhythmia diagnosis, demonstrating model effectiveness.

Publications:

- Kondreddy, I., et al. "Investigation on Enhancing the Binary Classification Accuracy of Supervised Classifiers Using Various Transform." *Journal of Applied Science*, vol. 1084, no. 1, 2021, pp. 012032.
- Kondreddy, I., "Feature Selection Using Elephant Herding Optimization Hybridized with Grey Wolf Optimization for Anomaly Detection in Wafer Manufacturing." *Proceedings of the International Conference on Advanced Computational and Communication Paradigms*, 2021.
- Kondreddy, I., "A Study on Real World Implementation and Future Trends of Internet of Things." *IEEE Xplore*, 2021.
- Kondreddy, I., "Improving the Performance Metrics of Binary Classification Models with Different Transforms." *International Research Journal of Engineering and Technology*, vol. 8, no. 6, 2021.
- Kondreddy, I., "Anomaly Detection Using Supervised Classifiers Combined with Feature Clustering Techniques." *International Conference on Neural and Advanced Technologies*, 2021.
- Kondreddy, I., "Quanvolution Neural Network to Recognize Arrhythmia from 2D Scaleogram Features of ECG Signals." *IEEE Xplore*, 2022.
- Kondreddy, I., "A Review: The Success of Tesla from 2003 to 2022." *International Research Journal of Engineering and Technology*, vol. 9, no. 4, 2022.
- Kondreddy, I., "Leveraging Quantum Feature Extraction and Transfer Learning for Alzheimer's Disease Diagnosis and Classification." Accepted at *International Conference on the Science of Science and Technological Advances*, 2023.