# **Jnan Yalla**

# AIML and QML Developer

Hyderabad, India 9150859936 inanyalla@gmail.com

# PROFESSIONAL SUMMARY

Enthusiastic and diligent AIML
Developer engineering intern with a
passion for harnessing the power of
cutting-edge technologies to solve
complex problems. Proficient in a wide
array of machine learning techniques,
including deep neural networks, deep
learning, quantum machine learning
(QML), and quantum algorithms.
Skilled in leveraging data analytics and
data science methodologies to derive
actionable insights.

# **EDUCATIONAL BACKGROUND**

Narayana Jr College [2020 - 2022] +1 and +2 Completed with GPA - 9.76

Malla Reddy University [2022-2026]
Bachelor of Technology - CSE
1st Semester CGPA - 9.20
2nd Semester CGPA - 9.18

## **TECHNICAL SKILLS**

- Python
- Tensorflow
- Pytorch
- Qiskit
- Machine Learning
- Quantum Computing
- Quantum Machine Learning
- Deep Learning
- · Reinforcement Learning
- Quantum Neural Networks

# PROFESSIONAL EXPERIENCE

Intern – Quantum Computing & Machine Learning Quantum Al Global, Hyderabad [01/11/2023 to 30/04/2024]

Spearheaded quantum computing initiatives focusing on portfolio optimization, portfolio diversification, and job scheduling problem, leveraging quantum machine learning solutions.

Applied quantum neural networks and deep learning techniques to enhance the performance of quantum algorithms for various optimization tasks.

Played a pivotal role in data preprocessing and analysis for all machine learning projects, ensuring data quality and reliability for model training and evaluation.

Actively participated in team meetings and brainstorming sessions, offering valuable insights and suggestions to improve algorithmic efficiency and performance.

Engaged in continuous learning and professional development, staying abreast of the latest advancements in quantum computing, machine learning, and related domains

# **KEY SKILLS**

- · Ability to work in a team
- Quick Learner
- Multi Tasking
- Public Speaker
- · Ability to be cool during deadlines
- Communication
- Time Management Skills

#### **PROJECTS**

# **Quantum Computing Research**

- Explored Theoretical Foundations and Mathematical Challenges of Quantum Computing.
- Authored a research article on collaboration with Sri Easwari Engineering College, Coimbatore.
- Investigated potential quantum machine learning algorithms and real life applications.

# **Stock Market Prediction Web application**

- Designed and developed a stock market prediction web application using streamlit and python.
- Integrated S&P 500 tracking and real time news display.
- Used RNN and LSTM based approaches for prediction of future prices of the stock token.
- Utilized data analysis in order to have efficient datasets for training the model.

### **Portfolio Optimisation and Diversification**

- Built an application which performs portfolio optimisation and diversification by assigning accurate weights for the stock tokens.
- Utilised the advantage of Quantum Machine learning using Dwave samplers for maximising the returns and minimising risks
- Utilised the advantage of Quantum Neural Networks to classify the stock tokens and enabled diversification

#### **Job Schedule Optimisation**

- Built a job scheduling model which assigns the work shifts of the employees in a company so as to increase the efficiency of the work while decreasing the work hours of the employees.
- Used the cqm formulation of the quantum machine learning to assign the work shifts for the employees.

### **Traffic flow Optimisation**

- Built a model which decreasing the waiting time of the vehicles in traffic as well as increases safety to vehicles by assigning the correct time period for the traffic signals
- Made use of the dwave formulation to solve this np hard problem using quantum machine learning

### **CERTIFICATIONS**

- University of Michigan -- Financial Technology (Fintech) Innovations Specialisation
- <u>University of Washington –</u>
   <u>Machine Learning Specialisation</u>
- IBM -- Exploratory Data Analysis for Machine Learning
- IBM -- What is Data Science?
- Google Cloud -- <u>Using Machine</u> <u>Learning in Trading and Finance</u>
- IBM -- Tools for Data Science

### **PUBLICATIONS**

 Quantum computing basics, applications and future perspectives

https://doi.org/10.1016/j.molstruc.2024.137917

#### LANGUAGES KNOWN

- English
- Hindi
- Tamil
- Telugu