# Swaraj Purohit

# Applied Scientist

#### PROFESSIONAL EXPERIENCE

Research Intern, Delft University of Technology, QuTech ☑

Jul 2021 - Aug 2021

worked on a project involving using a universal AGI RL framework for simple experiments in quantum information theory. The agents interact with the environment to model the quantum observables.

- worked In a team of 32 distinguished individuals
- won the 3rd prize in the Qworld

### **EDUCATION**

B.Tech. - Computer Science & Engineering,

2023

Pune, India

Dr. Vishwanath Karad MIT World Peace University (MIT-WPU)

#### **SKILLS**

Python | JavaScript | GoLang | C/C++ | Docker | Solidity | Qiskit | ReactJS | PyTorch | SQL | Firebase | Q#

## **PROJECTS**

**Qsavvy,** Python Module for Quantum Optimization [2]

2022

This module is a Python implementation of the Quantum Optimization Algorithm and the Quantum calculation algorithm. This module is designed to optimize production processes and create new products, such as a new type of cholesterol drug for pharmaceutical companies.

MNIST WebGL classifier 🗆

2022

A WebGL/WASM neural network classifier that runs on browser runtime. It is observed to be 98% faster than existing APIs and is open source

ElPsyKongroo, Blockchain Asset handling Platform 🖸

2021

Developed fintech marketplace on Solidity Ecommerce selling platform, developed on Polygon Blockchain.

2021

Smart Irrigation System, An autonomous IOT solution ☑

Applied IoT concepts to ensure the success of smart irrigation system prototype as part of team using Raspberry Pi and sensors for homeowners with the objective to help conserve water and save money

Satellite Image Reconstruction, GANS to reconstruct missing data in satellite imagery

2020

Quantum 3D Game of Life, Optimization of Quantum hardware to simulate artificial life

2021

Garden-of-thoughts, a static curation website based on Github Action

2021

# **AWARDS**

NYUAD Finalist, New York University AD

iQuHACK 2022 Finalist, Massachusetts Institute of Technology

**QCHACK**, Stanford and Yale

MIT WPU Octathon winner, MIT WPU

SIH Finalist 2020, MHRD India

SIH Finalist 2022, MHRD India

# **CERTIFICATES**

IBM Quantum Challenge 2021 Achievement (Advanced)

IBM Quantum Challenge Africa 2021 (Advanced)

IBM Quantum Challenge - Fall 2021 (Advanced)

IBM Qiskit Global Summer School 2021 (Advanced)

IBM Qiskit Global Summer School 2022 (Advanced)

# **PUBLICATIONS**

Reconstruction of Missing Data in Satellite Imagery Using SN-GANs, Springer, Singapore 2

26 Oct 2021

This paper presents SN-GANs (SN-generative adversarial networks) which is two-staged architecture, and it is based on the concept of feed forward neural networks with contextual attention layers

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