Swaraj Purohit

Applied Scientist

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PROFESSIONAL EXPERIENCE

ML Intern, *Quidich Innovation Labs* Aug 2022 – present
developed multiple fast image classification models for high-speed real-time sports matches games for telecast purposes. The models were used by broadcasters to determine the winner and score of a match.

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.
- won the 3rd prize in the Qworld

EDUCATION

B.Tech. - Computer Science & Engineering, 2023
Dr. Vishwanath Karad MIT World Peace University (MIT-WPU) Pune, India

SKILLS

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

PROJECTS

Qsavvy, *Python Module for Quantum Optimization* 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.

Hermes.AI, *language-agnostic chatbot builder* 2022
a chatbot builder trained in 112 languages (supporting mix languages), with intent detection and fully containerized, making it highly scalable. winning idea for Smart India Hackathon 2022

ElPsyKongroo, *Blockchain Asset handling Platform* 2021
Developed fintech marketplace on Solidity Ecommerce selling platform, developed on Polygon Blockchain.

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

Smart Irrigation System, *An autonomous IOT solution* 2021
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

SIH 2022 Winner, *MHRD India*

QCHACK Winner, *Stanford and Yale*

MIT WPU Octathon winner, *MIT WPU*

NYUAD Finalist, *New York University AD*

iQuHACK 2022 Finalist, *Massachusetts Institute of Technology*

SIH Finalist 2020, *MHRD India*

Governor's Award, *Scouts and Guides*

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* 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