Karan Kinariwala

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Personal Website
LinkedIn
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ACADEMIC BACKGROUND

Master of Science in Physics June 2019 - June 2021
St Joseph's College (Autonomous), Bangalore, Karnataka

- GPA: 7.6 / 10
- Thesis: Modeling the diffuse UV background around Messier 8

Bachelor of Science in Physics, Chemistry, and Mathematics June 2016 - June 2019
St Joseph's College (Autonomous), Bangalore, Karnataka

- GPA: 7.0 / 10
- Certificate in Data Analytics and Statistics.

RESEARCH EXPERIENCE

Thesis: Modeling of the diffuse UV background around Messier 8

- Conducted under the guidance of Dr. Jayant Murthy from the Indian Institute of Astrophysics.
- Modeled the dust distribution around Messier 8 to understand star formation in dense, hot hydrogen clouds.
- Utilised data from the HIPPARCOS, Gaia, and GALEX catalogs along with models developed by Castelli and Kurucz, Green et al 2019 and Bruce T. Draine.
- Currently, drafting a research paper on this project.

PROFESSIONAL EXPERIENCE

Intern - Machine Learning August 2021 - January 2022
Juxt Smartmandate Pvt Ltd, Bangalore, India

- Developed a machine learning model using Python and Tensorflow for pose detection and classification to assess geriatric disabilities on video.
- Link to GitHub Repository

Student Vice President, Physeeksee June 2020 - June 2021
St Joseph's College (Autonomous), Bangalore, Karnataka

- Physeeksee is the post - graduate physics students association.
- Led the Physeeksee team in organising student, faculty and external talks, events and

Intern - IoT and Analytics May 2017 - June 2017
trakRYT PTE LTD, Singapore and Malaysia

- Mapping and configuration of IoT devices at the MCVE (Malaysian Commercial Vehicles Exhibition) in Kuala Lumpur, Malaysia.
- Promoting the exhibition app to visitors.
- Analysis of data of visitor behaviour collected at the exhibition such as footfall and behaviour analysis, heat map and footfall insights.

COURSES

2023 Qiskit Global Summer School on Quantum Simulations June 2023
- Grade: 100 / 100

2022 Qiskit Global Summer School on Quantum Simulations June 2022
- Grade: 100 / 100

Curves and Surfaces: Geometry and Physics Applications - International Center for Theoretical Sciences (ICTS) May 2022 - June 2022
- A month-long in-person course on topology at ICTS, Bangalore.

2021 Qiskit Global Summer School on Quantum Machine Learning June 2021
- Grade: 78.26 / 100
- Certificate of Quantum Excellence, Quantum Computing, and Quantum Machine Learning

Deep Learning Specialisation - deeplearning.ai - Coursera June 2020 - November 2020
- Specialisation of five courses: Neural Networks and Deep Learning, Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization, Structuring Machine Learning Projects, Convolutional Neural Networks, and Sequence Models.

Data 8.1X, 8.2X, 8.3X: Foundations of Data Science - edX May 2018 - October 2018
- 8.3X: Prediction and Machine Learning
- 8.2X: Inferential Thinking and Resampling
- 8.1X: Computational Thinking in Python

SKILLS

- Technologies / Tools - Python, Julia, GDL / IDL (Interactive Data Language), C, SQL, Git
- Python Libraries - Numpy, Pandas, Sklearn, Matplotlib, Astropy, Seaborn, Plotly, Tensorflow, Keras, PyTorch, Flask, Qiskit.
- Computational Software - Maxima, Scilab
- Math - Linear Algebra, Statistics, Calculus, Abstract Algebra, Complex Analysis