Eraj **GULRAIZ**

linkedin.com/in/eraj-khan-729593128/ github.com/eraj-khan
+923498951349
Skype : itseraj2
erajj94@gmail.com
July 7, 1994.

Physics graduate with Masters in Computational Science, making my way to become a Computational Astrophysicist.

SKILLS

Programming Languages	C, Python, ADQL (basic)
Markup Language	LaTeX
OS	Linux (Ubuntu),Linux Shell, Windows
General Softwares	Github,Jupyter Notebook, Microsoft/Libre Office, MatLab (basic), ORIGIN LAB (basic), SSH (PuTTy), WinSCP
CAE Softwares	Xfoil, SpaceClaim, Design Modeler, ANSYS Fluent, ANSYS AIM, ANSYS Mesher, Fluent Mesher, ANSYS Ensight (Post-processing)

EXPERIENCE

August 2021 – June 2o21 — **ASPIRE Candidate, UNIVERSITY OF AMSTERDAM,**
- Project Title : Measuring cosmic expansion history with gravitational wave sources. Gravitational and cosmological parameter estimation with NS-BH mergers as GW sources.
- Supervisor : Dr. Suvodip Mukherjee
  URL :GAPPA- UvA API
- **URL :** Project Repository

Python3 | bilby | MCMC-Hammer | Gravitational Wave Cosmology | Parameter estimation

Current – March 2020 — **Volunteer Programming Teacher, MENTORS WITHOUTBORDERS,**
- Remotely teaching Python Programming to underprivileged students around the globe.
- URL : MWB

Python

November 2019 — **Author Conference Paper, ICASE 2019, IST Islamabad**
- 1st position in Poster Competition
- Paper Title : *Numerical Study on Effect of High Lift Devices on Dynamic Stability Characteristics of a Generic Airfoil*
- URL : NUST-news

CFD | Aerodynamics

July 24, 2019 – July 14, 2019 — **Organizer, NUST-BRAIA SUMMER CAMP 2019, NUST Islamabad**
- 10 day NUST-BRAIA International Summer Camp 2019, for High Performance Computing (HPC) in Aeronautics
- Hosted students from 6 countries
- URL : NWPU-China

HPC | Aerodynamics | aeronautics

January 2019 — **Conference Participation, IBCAST 2019, NCP QAU Islamabad**
- International Bhurban Conference on Applied Sciences and Technology
- URL : IBCAST

Fluid Dynamics | Aerodynamics | CFD

January 2017 – February 2016 — **Teaching Assistant, PHYSICS DEPT, COMSATS University Islamabad**
- Teaching Assistant for Supervisor at Department of Physics
- Helped students with academic or departmental issues

Mechanics | Classical Mechanics | Mechanics Lab | Calculus I

August 2016 – June 2016

Volunteer Experimental Researcher Nanotechnology, CMND, COMSATS University Islamabad

- Idependent research at CMND (Centre of Micro and Nano Devices) on Structural and Optical Properties of Graphene.
- Performed RAMAN Spectroscopy and Atomic Force Microscopy AFM on Mechanically exfoliated Graphene
- URL : CMND COMSATS

AFM | Nanotechnology | RAMAN spectroscopy

Oct 2015

Oganizer, International Symposium of Light and Life 2015, COMSATS University Islamabad

- 5 day event with seminars and workshops relevant to Optics, LEDs, LCDs, Solid state light-ing and photonics
- URL : Light and Life 2015

Photonics | Optoelectronics | Imaging Science

Languages

English
Urdu

Strengths

- Communication
- Leadership
- Independent & Team Player

Education

2017- 2020 MS Computational Sciences and Engineering at RCMS, NUST, Islamabad.
Specialization : Applied Mechanics- Computational Fluid Dynamics.
Masters Thesis : Computational Aeroacoustic Analysis of High Lift Devices in Commercial Airliner,
Link : MS Thesis

2012-2017 BS Physics at COMSATS University,Islamabad,
Specialization : Theoretical Physics- Computational Astronomy
BS Thesis : An Analysis of Modified Newtonian Dynamics (MoND) as a Candidate for Solving The Missing Mass Problem,
Link : BS Thesis Code

Extra-Curricular

Sports

- Basketball
- Badminton
- Running
- Horse Riding
- Cycling, Quad Biking

Leisure

- Singing
- Painting, Astro-painting
- Crafts

References

Available on request