


Wasif Shaqil

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EDUCATION

Universität Hamburg, Germany <i>M.Sc. in Physics Astronomy & Astrophysics</i>	Oct. 2022 – Mar. 2025 (Expected) <i>Grade: 1.60</i>
Gauhati University, India <i>B.Sc. in Physics</i>	Aug. 2018 – Nov. 2021 <i>Grade: 9.08/10</i>

SKILLS

Programming Languages: Python, C/C++, SQL
Tools: Git, L^AT_EX, Visual Studio Code, Microsoft Office, ROOT, Mathematica
Libraries: Scipy, TensorFlow, yt, AstroPy, NumPy, Matplotlib, Pandas, Seaborn, Plotly
Languages: English (C1) | German (A2) | Hindi, Bengali, Assamese (Native)

EXPERIENCE

- Master Thesis - Tidal Interaction in the Galactic Center** Oct. 2023 – Present
- Investigated the tidal interaction of a gas and dust cloud in the vicinity of the supermassive black hole Sagittarius A* at the Milky Way galactic center using test-particle simulations, and then compared them to observational data with the goal of finding its origin.
 - Research Paper in preparation in collaboration with researchers from the US.
 - *Supervisors:* Prof. Dr. Stephan Rosswog, Dr. Diego Calderón Espinoza
 - *Institute:* Hamburger Sternwarte, Universität Hamburg
- Scientific Assistant** May 2024 – Sep. 2024
- Performed test particle simulations in the Galactic Center (GC) and also analysed RAMSES hydrodynamical simulation data of the GC Wolf-Rayet stars and their stellar winds using Python and yt.
 - *Supervisor:* Dr. Diego Calderón Espinoza
 - *Institute:* Hamburger Sternwarte, Universität Hamburg
- Academic Tutor** Apr. 2024 – Aug. 2024
- Exercise and grading assistant in the course - Intro to General Relativity and its astrophysical applications by Prof. Dr. Robi Banerjee.
 - *Institute:* Universität Hamburg

CERTIFICATIONS

- Supervised Machine Learning** Aug. 2024
Stanford University, DeepLearning.AI
Learnt the basics of machine learning and algorithms like regression, classification, clustering and neural network.
- Python for Data Science and Machine Learning** Dec. 2021
Udemy
Learnt the basics of Data Science and Machine Learning algorithms like Random Forest, K-Nearest Neighbour, Naive Bayes, Support Vector Machines.
- Complete Python Bootcamp** Apr. 2020
Udemy
Learnt Programming with Python and its basic applications through various small projects.

WORKSHOPS AND SEMINARS

Workshop on the nuclear reaction network WINNet Jun. 2024
Hamburg, Germany

Attended a 1-day workshop on the nuclear reaction network by Dr. Moritz Reichert at the Hamburg Observatory.

SIGRAV International School 2024 Feb. 2024
Salerno, Italy

Attended (online) the SIGRAV International School held in Salerno, Italy wherein I got valuable insights into the Gravitational Astrophysics, Gravitational Waves etc.

Workshop on "Python with Space Applications" Dec. 2021
Guwahati, India

Learnt about the basics of python and its applications in the space industry, particularly in research related to astronomy.

Summer Workshop on Plasma Physics Jul. 2020 – Aug. 2020
Guwahati, India

Learnt about the basics of Plasma Physics, astrophysics and Lasers and linearization, perturbation, pseudopotential techniques

IoT Based Weather and AQ Determination Dec. 2019 – Mar. 2020
Guwahati, India

Proposed a new model on accurate, real-time weather monitoring and measurement of air quality.

HONOURS AND AWARDS

UHH Degree Completion Grant Jul. 2024 – Dec. 2024
Universität Hamburg, Germany

Managed to get the Degree Completion Grant from the Universität Hamburg for the research phase of my M.Sc. Degree.

Quantum Universe Cluster of Excellence Grant May 2024 – Sep. 2024
Universität Hamburg, Germany

Secured the QU Cluster of Excellence grant of 3000 euros for my Master Thesis. (PI: Dr. Diego Calderón).

National Level Quiz Competition May 2021
Indian Institute Of Technology, Guwahati

Secured 4th Position in the National Level Quiz competition on "Optics Through Problem" conducted by the SPIE, Indian Institute of Technology, Guwahati (IIT-G).

EXTRACURRICULAR ACTIVITIES

Public Outreach - Galactic Center VR demonstration Jul. 2024
Hamburg, Germany

Participated in outreach activity wherein I showcased a VR demonstration of the Galactic Center at the Sternstunden Festival in the Hamburg Observatory.

Hamburger Sternwarte weekly Journal Club Sep. 2023 - Present
Hamburg, Germany

Actively involved with the weekly Journal club at the Hamburg Observatory.