



Harshit Verma

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BIO

Birth Date

12th June 1994

Nationality

Indian

Pronoun

He/him

Current Location

Sydney, NSW



OBJECTIVE

To pursue a position in applications of quantum technology, which allows me to imbibe novel ideas while leveraging my analytical and computational skills spanning open quantum dynamics, and quantum noise.



ABOUT ME

In a dynamic research career, I have explored diverse fields within the quantum domain such as quantum spin chains for information transfer and many-body localization, gravitational effects in quantum, quantum processes, thermometry and thermodynamics. After having worked extensively in such novel theoretical streams, I now want to pivot towards applications of quantum technology. I like to take up challenging projects requiring inter-disciplinary thinking, and coding.



EDUCATION

● 2018 – 2023 : Doctorate

Doctor of Philosophy in Physics

**ARC Center of excellence for Engineered Quantum Systems (EQUS),
University of Queensland, St Lucia, Australia**

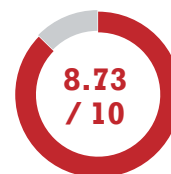
Thesis: Quantum control in probing relativistic effects and thermodynamics

● 2012 - 2017 : Graduation and Post-Graduation

5-year Integrated M. Tech in Engineering Physics

Indian Institute of Technology (IIT-BHU), Varanasi, India

Thesis: Generalized Uncertainty Principle



CGPA



Position



MAJOR SKILLS

Technical Writing and Presentation



Python, scientific packages



Matlab



Mathematica (Symbolic computation)



Self Assessment of Proficiency (■) in various scientific libraries:



Freqtrade



Scipy optimize, multi-processing



Qutip



Qiskit, Quspin



AWARDS and ACCOLADES

- Received amazing reviews for the video: "Finding elementary particles using gravity" in Visualize your thesis 2022.
- Awarded the third prize in ECA Pitchmasters competition held at AIP congress 2021 for a pitch on the topic: "Using gravity to discover fundamental particles".
- Awarded the overall first prize (as a part of team of 4) in EQUUS idea factory for proposal writing and presentation. Topic: *Quantum thermal heat engines*.
- Awarded the first prize in 3-Minute thesis competition in the School of Mathematics and Physics, UQ. Topic: *Using gravity and quantum together for predicting fundamental particles*.
- Awarded UQ research training scholarship for pursuing Ph.D.
- Awarded merit certificate for second rank in the Integrated M. Tech Engineering Physics 2017 batch at Indian Institute of Technology, BHU Varanasi (IIT-BHU).
- Awarded PG scholarship in the final year of Integrated M. Tech at IIT-BHU.



OTHER HIGHLIGHTS

- **Aim to excel:** Five first author research papers (including preprints), many joint papers.
- Delivered more than 20 scientific presentations including posters and talks at various conferences.
- **Planning and leadership:** Served as student convener and coordinator in two consecutive years for a student led physics convention "Jigyasa" at IIT-BHU.
- **Hobbies:** I have a keen interest in books about social sciences, and in cooking.