ASHWIN KUMAR KARNAD

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🌐 *Webpage: ashwinschronicles.github.io*   🐱 *Github: iamashwin99*   in Linkedin

Publications

- Senapati, T., **Karnad, A.K**. & Senapati, K. Phase biasing of a Josephson junction using Rashba–Edelstein effect. **Nature Communications** 14, 7415 (2023)

Relevant Work Experience

2024-   FORSCHUNGSZENTRUM JÜLICH, Jülich:
Research / Quantum Software Engineer
Working on Quantum computer (QPU) integration: Infrastructure to access QPUs including authentication.

2022-24   MPI FOR THE STRUCTURE AND DYNAMICS OF MATTER, Hamburg:
Research Software Engineer.
Worked on **Computational Scientific support**, massively parallel **HPC codes** and **HPC infrastructure** maintenance (hardware and software), Linux system administration, managed CI/CD infrastructure, contributed to the **development of python packages** like: Postopus - POSTprocessing of OctoPUS simulations; mpsd-software-manager. Supported scientists in creating open-source, reproducible scientific simulations.

Education

2022   BITS - PILANI UNIVERSITY, INDIA
*Int. **MSc. Physics** and **B.E Electronics and Instrumentation** (Dual Major) CGPA - 7.71 / 10.0*

2017   VVS GJ PU COLLEGE, MYSORE - CLASS 12th
KSEB Board. Marks : Physics - 100%, Chemistry - 96 %, Mathematics 99%

2015   DEMONSTRATION SCHOOL - CLASS 10th
CBSE Board. 9.8/10 CGPA

Honors and Awards

2023   2nd place, Kühne+Nagel and Google hackathon: Created AutoQuote, an AI service that automatically replies to customer email with a price quote for shipment requests.

2023   2nd place, ADLIFE hackathon: Created an LLM based solution to classify statements in a medical guidelines into diagnostic, therapeutic, warning remarks.

2023   1st place, Rad-Daten-Hackathon: worked on comfybikes.de an app to suggest optimal saddle height for your bike using image detection.

2022   1st place, COMPAR EU hackathon: Created an AI-based solution for a data platform which helps patients manage their serious chronic illness.

2019   National top 30 in NGPE-19 exam (Graduate physics exam with 11372 candidates).

2019 3rd place in Open CBR Hackathon *organised by University of Leeds*.

2018   Awarded Kishore Vaigyanik Protsahan Yojana (KVPY) 2017 **Fellowship by *Govt. of India***.

2018   Offered Innovation in Science Pursuit for Inspired Research (INSPIRE) 2017 Scholarship by *Govt. of India*.

2016   Awarded ISCA Travel award by *Infosys Foundation*.

2014-16   Participated in 103rd Indian Science Congress held at Mysore, India (2016); IRIS science fair organised by *Intel* at Delhi, India (2016); Rashtriya Kishore Vaigyanik Sammelan of 102nd Indian Science Congress held at Mumbai, India (2015); 41st Jawaharlal Nehru National Science Exhibition at Chandigarh (2014) (Presenting the device stated as "A Novel Stove Stand").