Naveen Vishwakarma

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B.Tech - Engineering Physics
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EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech.	Indian Institute of Technology, Guwahati	6.73 (Current)	2020-Present
Senior Secondary	CBSE	93.6%	2018-19
Secondary	CBSE	10	2016-17

PROJECTS

- **Implementation of quantum algorithm using ibm quantum computer** *jan 2023 - may 2023*
  under the guidance of prof.Amarendra Kumar Sarma Github
  - Worked on several **quantum algorithms** and learned how to apply them to solve real-world problems
  - Calculated **spin Correlations** using quantum computer
  - Created various quantum circuits to experimentally calculate the expectation value of several spin correlation functions.
  - Developed a code to perform an experiment on different quantum states and estimate the experimental value of several spin correlation functions
  - Technologies used: **Qiskit**,quantum composer, Python

- **POQComputing** *Mar 2022 - Jun 2022*
  Individual Project Github
  - Developed a solution to the **mean-variance portfolio optimization** problem for n assets using **Quantum algorithms**.
  - Fetched **historical and real-time data** of stocks from the National Stock Exchange's website.
  - Mapped the problem to a Hamiltonian.
  - Optimized the stock portfolio to minimize risk and maximize returns.
  - Technologies used: **Qiskit**, NSEpy, Numpy, Matplotlib, Python

- **CarZone** *Mar 2022 - May 2022*
  Individual Project Github
  - Developed a **responsive website for a car dealer** which provides the details of cars available in the market for sale to the users.
  - Users can search for a car by keyword and can make inquiry by sending email to website's authorization.
  - Implemented an HTML/Bootstrap template and customised the Django Admin Panel.
  - Created different apps and introduced a search functionality.
  - Technologies used: **Django**, **PostgreSQL**, **Bootstrap**

TECHNICAL SKILLS

- **Programming**: Python, C, C++
- **Web Technologies**: HTML, CSS, Django, Bootstrap, JavaScript*
- **Operating Systems**: Windows, Linux*
- **Miscellaneous**: Git, quantum computing,NumPy, Pandas, Matplotlib, SciPy, QisKit*, QisKit-finance* *
  Elementary proficiency

KEY COURSES TAKEN

- **Mathematics**: Linear Algebra, Differential Equations, Calculus and Real Analysis, Mathematical Physics
- **Computer Science**: Introduction to Computing, Computational Physics, Programming Essentials in Python
- **Consulting**: Winter Consulting
- **Quantum**: Quantum Mechanics , Quantum computation and cryptography

POSITIONS OF RESPONSIBILITY

- **Overall Coordinator**, Cultural Board, IIT Guwahati *May 2022 - March 2023*

EXTRACURRICULAR ACTIVITIES

- **Substance Abuse Awareness Club** , Worked towards the goal of Drug-free India for
  the welfare of society with the SAA club.   *2021-present*
- **Hockey Club** , Participated in various tournaments on behalf of the club and
  represented Brahmaputra hostel in Spardha 2022.   *2020-present*
- **National Service Scheme**, Actively participated in activities and camps organised by
  NSS BU Bhopal as a Volunteer.   *2017-19*
- **62nd School Games Hockey**, Participated in 62nd SGFI Games held at Bhopal Represented
  NAVODAYA VIDHYALAYA SAMITI in U-17 Category.   *2016-17*
- **National Cadet Corps**, Actively participated in drill activities and camps organised by
  1 MP COMPO TECH REGT NCC, BHOPAL UNIT as a Cadet.   *2015-17*