

# VISHAL MANDAL

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I am a final year Undergraduate student with specialization in Information Technology. Love to work in a team and have very good team work experience. Like to solve problems and challenges. I am a technology enthusiast, seeking opportunities to work on different emerging technologies to have an impact on the real world.

## EDUCATION

<u>DEGREE AND INSTITUTION</u>	<u>SCORE</u>	<u>GRADUATION YEAR</u>
<b>Bachelor of Technology in Information Technology</b> Institute of Engineering & Management - Kolkata	9.37 CGPA(5th sem)	NOV 2020-AUG 2023
<b>Diploma in Computer Science and Engineering</b> Government Polytechnic college - Dumka	71.75%	JUNE 2017-OCT2020
<b>Matriculation (High school)</b> CISCE - New Delhi	69%	MAY - 2017

## INTERNSHIP EXPERIENCE

<b>Summer Research Intern - QWORLD</b>	Jun 2022 - Present
<ul style="list-style-type: none"><li>Qworld is a non-profit organization that provides education, internships and several opportunities in the field of Quantum computing. The project title is <b>Demonstration of "Lambeq" Library</b>. Lambeq, the first high-level open-source Python toolkit for Quantum NLP developed by Cambridge Quantum.</li></ul>	

## PROJECT EXPERIENCE

<b>AIR POLLUTION MONITORING AND PREDICTION USING IoT &amp; ML</b>	May 2022 - Present
<ul style="list-style-type: none"><li>Developing an interface to design, develop and execute an IoT &amp; ML based model to predict AQI Index of the environment with a team of 4 members.</li></ul>	
<b>COMPILER DESIGN VIRTUAL LAB</b>	Apr 2022 - May 2022
<ul style="list-style-type: none"><li>Developed a virtual lab to show the different experiments conducted on lab classes for Compiler Design. The project was built as a part of our college assignment in a team of 5 members by using HTML, CSS &amp; JavaScript.</li><li>GitHub: <a href="https://github.com/Vishal-Mandal/COMPILER-DESIGN-VLAB">https://github.com/Vishal-Mandal/COMPILER-DESIGN-VLAB</a></li></ul>	
<b>QUANTUM SUDOKU</b>	Apr 2022 - Apr 2022
<ul style="list-style-type: none"><li>The project was built using the Qiskit framework. It allows the users to interact with the real Quantum Computers and learn more about them. It was a 24-hour project as a part of QCHackathon2022.</li><li>GitHub: <a href="https://github.com/Vishal-Mandal/QCHack-2022">https://github.com/Vishal-Mandal/QCHack-2022</a></li></ul>	
<b>ONLINE SHOE STORE</b>	Jun 2020 - Jul 2020
<ul style="list-style-type: none"><li>This project was to build an online e-commerce shopping website where users can look for products, search them and can also order their selected products.</li><li>GitHub: <a href="https://github.com/Vishal-Mandal/ONLINE-SHOE-STORE">https://github.com/Vishal-Mandal/ONLINE-SHOE-STORE</a></li></ul>	
<b>AIRLINE RESERVATION SYSTEM</b>	Sep 2019 - Oct 2019
<ul style="list-style-type: none"><li>The project was to build an online ticket booking system for airlines. The system is capable of showing the time table of different flights, search flights, book tickets etc.</li><li>GitHub: <a href="https://github.com/Vishal-Mandal/AIRLINE-RESERVATION-SYSTEM">https://github.com/Vishal-Mandal/AIRLINE-RESERVATION-SYSTEM</a></li></ul>	

## RESEARCH EXPERIENCE

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### Uncertainty Principle in the Light of Quantum Information Science

Oct 2021 -Dec 2021

- Wrote a paper with a team of 4 members under the guidance of Prof. Amit Kumar Mandal to represent the uncertainty of position & momentum in the realm of Quantum Mechanics. The paper focuses on the concept and the mathematical aspect of this principle.
- Link : <https://drive.google.com/file/d/1AiWQqMgqQ2eungOSNKMB6e6kpJifqJQy/view?usp=sharing>

## AWARDS/CERTIFICATIONS

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**MICROSOFT CERTIFIED:** Passed Exam SC-900: Microsoft Security, Compliance & Identity Fundamentals.

- Certificate: [https://www.credly.com/badges/e299a806-569e-4cfc-9bf7-f4348da8e751?source=linked\\_in\\_profile](https://www.credly.com/badges/e299a806-569e-4cfc-9bf7-f4348da8e751?source=linked_in_profile)
- PYTHON 101 FOR DATA SCIENCE (PY0101EN, provided by IBM):** The content for this course is created by IBM and the certificate is issued by Cognitive classes. The course teaches the basics of Python and some of its libraries.

- Certificate: <https://courses.cognitiveclass.ai/certificates/e56d4a29f48c49c4bf192100d93cd11d>

**QUANTUM COALITION HACKATHON:** Successfully submitted the project under time.

- Certificate: <https://drive.google.com/file/d/188G1qKfnDuWHxMDrNTY3P9bcVxveDwcC/view?usp=drivesdk>

**QBRONZE CERTIFIED:** Successfully completed the Qbronze workshop using Qiskit with a quiz score of 71% overall.

- Certificate: <https://drive.google.com/file/d/1Kzde6lbrBq7YKp5NP7MtykVifjXTo6ue/view?usp=sharing>

**QSILVER CERTIFIED:** Successfully completed the Qsilver workshop using Circ.

## ACTIVITIES

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- Got honorable mention in **QC-HACK2022** conducted by **Quantum Coalition** and sponsored by companies such as IBM, Microsoft, AWS etc.
- Participated in the **AWS DeepRacer Student League 2022** and ranked in the top 500 globally. Also received scholarship for **AI Programming with Python** Udacity Nanodegree Program.
- Participated in **Qiskit Global Summer School 2022**, hosted by **IBM Quantum** mainly focused on Quantum Simulations.
- Received scholarship and actively participated in **Womanium Global Quantum Computing & Entrepreneurship Program**.

## TECHNICAL SKILLS

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- Programming Language : C , Java, Python, Qiskit, Circ, HTML, CSS
- Toolkit: Jupyter, Spyder, Lambeq
- Experience in OS: Windows, Linux
- Libraries: Numpy, Pandas, Matplotlib, scikit-learn
- Soft Skills: communication, team work

## SUBJECT OF INTEREST

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- Quantum Computing
- Artificial Intelligence & Machine Learning
- Data Structure & Algorithms
- Object Oriented Programming

## LANGUAGE SKILLS

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- Hindi           Fluent
- Bengali       Native
- English       Proficient

## HOBBIES

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- Dance
- Martial Arts
- Explore