

PALLAB MAHATO

Final Year BS-MS (DUAL), Physics | Indian Institute of Technology Kanpur

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📍 Purulia, West Bengal

EDUCATION

Indian Institute of Technology Kanpur

MS in Physics

CPI: 8.7/10

📅 2022 - Present

📍 Kanpur, India

BS in Physics

CPI: 8.3/10

📅 2018 - 2022

📍 Kanpur, India

Ramakrishna Mission Vidyapith, Purulia

XII, WBCHSE

Percentage: 91.6%

📅 2018

📍 Purulia, India

Barabhum Higher Secondary School

X, WBBSE

Percentage: 94.8%

📅 2016

📍 Purulia, India

COURSEWORK

[i : online](#)

Computer Science

Fundamentals of Computing, Data Structures [i](#)

Mathematics

Applied Probability and Statistics, Multivariate Calculus, Financial Economics, ODE and Linear Algebra, PDE and Group Theory

Physics

Quantum Computing, Computational Physics, Physics for Information Processing

SKILLS

Languages

C, C++, Python, HTML, CSS, JavaScript, SQL

Utilities/Libraries (familiar)

LaTeX, NumPy, Scipy, Pandas, Matplotlib

Softwares

Visual Studio IDE, Vim, Github, Arduino IDE, MATLAB, Autodesk Inventor, MS Office

POSITION OF RESPONSIBILITY

Senior Executive: Udghosh'19

July'19 - Oct'19

- Administered the **Hospitality** and lodging of over **1600+** students from different colleges of India during their stay at IIT Kanpur for **Udghosh'19** & facilitated certificate distribution
- Built a team of **30+** Junior Executives whose main priority was handling complaints raised during the fest with close coordination to the Security Cell

EXTRA CURRICULARS

- Attended **Vijyoshi Camp** 2018, an Annual National Science Camp in India organised by **KVPY**, **DST**, **INSPIRE** program & **IISER Bhopal**
- Participated in volleyball tournament in **Inferno'18**, an inter-hostel sports event and won **gold** medal

ACADEMIC ACHIEVEMENTS

- All India Rank 2543**, JEE Advanced 2018 among **1,64,800** candidates
- All India Rank 6045**, JEE Mains 2018 among **10,43,700** candidates
- All India Rank 175**, WBJEE 2018 among **1,25,800** candidates
- Olympiad Rank 49**, International Olympiad of Mathematics
- Qualified **Chennai Mathematical Institute (CMI)** Entrance Exam 2018

PROJECTS

Linear Optical Quantum Computing

Course Project : Dr. Debabrata Goswami

Aug'21 - Dec'21

- Studied development of **optical quantum computer** utilising linear elements
- Studied several methods that can be applied to create **two-qubit gates**
- Developed a technique for the scalable two-qubit gate implementation

Automated Gear Shift Mechanism

Course Project : Dr. Mohit Law

Aug'19 - Dec'19

- Successfully constructed a **fully functioning model** and demonstrated the mechanism which allows automatic gear shifting that is found in cars
- Worked on a team of 8 to develop the **3D CAD model** as well as the final model using secondary manufacturing techniques
- Implemented a code in C++ for **Arduino UNO** to automate the machine

SELF PROJECTS

Sorting Visualiser [🔗](#)

- Created a web application to help users visualize various types of sorting
- Learnt a number of **Sorting Algorithms** including **Bubble sort**, **Insertion Sort**, **Selection Sort**, **Quick Sort** and **Merge Sort**
- Created **User Interface** using **HTML**, **CSS** and enhanced it using **Bootstrap**
- Implemented the animation, color effect and functionalities using **JavaScript**

Budget Manager [🔗](#)

- Built a **browser action chrome extension** by utilising the **Chrome API**
- Utilised **Manifest Version-2**, in addition to Chrome Application Programming Interfaces (**APIs**) such as **chrome.storage**, **contextmenu**, and **notifications**
- This extension makes it easier to **monitor spending** while making purchases from a number of different E-commerce websites
- You have the option to set a spending limit and get **notified** if you go over

Simon Game [🔗](#)

- Developed a **web version** of the Simon Game for memory skill development
- Learnt advanced **JavaScript** and **HTML**, as well as **Document Object Model**, which was subsequently applied in the project
- People can save a significant amount of money by playing this game virtually rather than investing in the actual toy because it is available to them online

Leads Tracker [🔗](#)

- Built this extension for chrome and **made it available** on **chrome web store**
- People are able to **save** and **remove** previously saved **URLs** with a single click
- The sales company will benefit from this expansion because it allows them to keep the profile-URLs of their potential consumers

Covid-19 Data Analysis [🔗](#)

- Used **Kaggle** and **Tableau software** to create graphs of **Covid-19** data
- The final graphical representation shows the number of confirmed, recovered, active & death cases countrywise, **WHO** regionwise & quarterwise for 2020