

## PROJECTS

### Movie Recommender | Python

- Developed a Machine Learning Movie Recommendation System using Python based on the concept of **User-User Collaborative Filtering**
- Used Python Libraries such as Numpy and Pandas to work with DataFrames, arrays and wrote various algorithms to clean, standardize and structure the final solution

### Connect\_X Game | C/C++

- Developed a backend model for the game Connect\_X that follows the conventional trend of the game Connect4 but with a greater variety of options
- The algorithm of this model allows the user to connect any positive number of pieces instead of just 4 to win the game enabling the alteration of the width and height of its structure thus ranging the complexity of the game from easy to hard

### Data Visualization | Python

- Developed visualization tools for NBA statistics using Jupyter Notebooks
- Used Python Libraries such as Numpy, Pandas to explore and clean the data
- Used Plotly to visualize the refined data and present it to draw out conclusions

### Accounts | C/C++

- Developed an accounting backend model using C++ allowing user management of different types of accounts
- Added functionality for various operations like crediting and debiting funds from accounts
- Used Object Oriented Programming to provide the client interface

### Stock Movement Visualizer | Node.js

- Developed an [app](#) to visualize changes in stock prices
- Designed front-end of the web app using HTML-CSS, added functionality with JavaScript and hosted using Heroku
- Scraped data from multiple sources, and connected to APIs using Node

## ACTIVITIES

### HEAD BOY (2019 - 20)

- Headed the students' council (2019) and was responsible for major decisions in maintaining the school's decorum
- Nominated by the school for Indo-Russian meet

### Vice Head Boy (2018 - 2019)

- Organized various activities as well as planned big events for the school and managed contributions (both financial and in kind) of over 5000 students
- Collaborated with different individuals/groups at different stages to represent my school

### MADHURMAYEE (2019)

- Taught English to middle-school students in Odisha, India
- Helped me develop a polite/humble nature required for a professional environment

### National Level Basketball (2017 - 2019)

- Was a part of the state team for Youth National Basketball Championship (2018) and Junior National Basketball Championship (2019)
- Represented my school at School National Basketball Championship (2017 & 2018) organized by SGFI (School Games Federation of India)

## EDUCATION

### University of Waterloo

Waterloo, Canada

**2020 - 25 (expected)**

Candidate for Bachelor of Computer Science with a Minor in Economics

Member of UW Data Science Club

### DPS Kalinga

Cuttack, India

**2006 - 20**

AISSE (class 10) - 92.4%

AISSCE (class 12) - 96.6%

## SKILLS

### Languages

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

### Data Science / Engineering

Scikit-learn, MySQL

### Software/Web Development

Node.js, Bootstrap

### Others

Git, GitHub, AWS

### Currently Learning

React.js, R, Apache Spark, Android Studio, Hadoop

## AWARDS

*University of Waterloo's President's Scholarship of Distinction*

*Microsoft Professional Orientation : Big Data*

*Master DPSK 2020 at DPS Kalinga*

*Highest Scorer at National Basketball Championship 2019*

## INTERESTS

*Data Science  
Software Engineering / Development  
Machine Learning  
Full Stack Development  
Game Development*