Aditi Chauhan

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EDUCATION

UNIVERSITY OF WASHINGTON
Applied Physics and Astronomy
Class of 2021 | Seattle, WA
3.45 GPA

LINKS

Github:// **caditi97**

RELEVANT COURSEWORK

- Intro to Programming
- Web Programming
- Datastructures and Algorithms
- Beginning Scientific Computing
- Database Management
- Machine Learning
- Artificial Intelligence
- Astrostatistics

SKILLS

- Java
- Python
- MATLAB
- Javascript
- HTML/CSS
- SQL/SQL++/NoSQL
- PHP

ACTIVITIES

C21 INTERNSHIP BOOTCAMP
Intern
Autumn 2020

C21 PROGRAM @ MICROSOFT
Extern
Winter 2020

FIUTS
Japanese Student Ambassador
Winter 2020

EXPERIENCE

UW ELEMENTARY PARTICLE EXPERIMENT GROUP | Researcher
Autumn 2020

- Studying the robustness of Exa.Trkx for particle tracking models by introducing noise in the datasets.
- Defining new definitions and metrics for the models.
- Worked in a team of 4 to test Machine Learning models for top-tagging.

DIRECTED READING | UWDRIP | Participant
Spring 2019

- Paired with a graduate student in physics to work on a quarter-long research project.
- Completed 3 hours of reading advanced research papers on Dark Matter Detection Experiments per week.
- Attended weekly meetings with a graduate mentor to discuss papers.
- Delivered an informal presentation on the topic to an audience to share results and progress.

PROJECTS

BACKGAMMON AGENT | Artificial Intelligence
February 2020

- Built two agents who play the game Backgammon Deterministically or Stochastically, in collaboration with my partner.
- Designed problem formulation, static evluation function and calculated all possible states.
- Incorporated Alpha-Beta Pruning and Expectiminimax Search in order to decide future moves efficiently.

MATHREAD | DubHacks 2019
October 2019

- An application designed for blind people who encounter math equations daily.
- Programmed the extraction of text from images using Google Vision API.
- Converted the text to speech and read it out loud (Google Text-to-speech).
- Successfully converted simple algebraic equations, plans to achieve similar results with complex calculus equations using latex in the future.

MACHINE LEARNING PROJECT | Intra-Class | 1ST out of 49
July 2019

- Predicted the income of US Citizens by analyzing structure of given data.
- Experimented with various ML models/ algorithms available, to test for over-fitting, loss, recall and accuracy.
- Achieved highest accuracy in class (87.5%).

SEARCH ENGINE | Datstructures & Algorithms
May 2019

- Implemented heap to sort data.
- Used sets and dictionaries to implement TF-IDF ranking.
- Determined quality or rank of webpage using inbound links and graphs.
- Combined the above to build a functioning search engine.