Aditi Chauhan

aditic2@uw.edu | caditi97@gmail.com

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
Present

C21 PROGRAM @ MICROSOFT
Extern
Winter 2020

FIUTS
Japanese Student Ambassador
Winter 2020

EXPERIENCE

UW ELEMENTARY PARTICLE EXPERIMENT GROUP | Researcher
Winter 2020 - Present

- Proved that the Exatrkx tracking models using don't successfully filter out noise in the datasets.
- Achieved results matching the academic papers for Machine Learning top-tagging models.
- Tested with GNNs with Random Sampling and Hard Negative Mining, results presented in the 4th IML Workshop at CERN.

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 like XGBoost 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.

FLIGHT BOOKING SERVICE | Database Management
February 2018

- Java customer application that connects to database in Azure.
- Implemented SQL transactions to guarantee ACID properties in the DBMS.
- Allows user to search, book, cancel flights through CLI.