# Avantika Poddar

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Github

https://github.com/imavantikahere

#### **EXPERIENCE**

## Beta Information Technology, Dubai — Summer Intern

JULY 2020 - SEPTEMBER 2020

Delivered weekly presentations and demos through research based learning of industry concepts like Virtualization, Cloud Computing and Cybersecurity.

## American University of Sharjah, UAE — Assistant Grader

SEPTEMBER 2020 - DECEMBER 2020

Updated teaching material like presentations, chapter summaries, etc. for an undergraduate course in Microcontrollers taught at University.

#### **EDUCATION**

## **University of Southern California (USC),** USA — Master of Science in Computer Science

AUGUST 2021 -PRESENT

## **American University of Sharjah (AUS),** UAE —Bachelor of Science in Computer Engineering

JANUARY 2018 - JUNE 2021 Graduated Magna Cum Laude Chancellor's List, 2018 - 2020

#### **PROJECTS**

### **Library Records System**

Using C++ classes and objects to build a system that can emulate the process of a library membership system.

### Zork- like adventure game in Java

Using OOP concepts in Java and different software designs to implement a role playing adventure game and incorporating simple phone sensors to emulate game actions.

#### **SKILLS**

- Python
- C/C++
- Java
- Kali Linux
- CouchDB
- Packages: Flask,
   Pandas, SciKit,
   NumPy, Prolog

#### **RELEVANT COURSES TAKEN**

- Data Structures and Algorithms
- Software Design
- Software Engineering
- Artificial Intelligence
- Data Mining and Machine Learning
- Neural Networks and Deep Learning

#### **CERTIFICATIONS**

IBM Professional Certificate in AI Engineering

#### **LANGUAGES**

English, Hindi, Bengali (Fluent)

## Miscellaneous AI Projects

- Using search algorithms to follow goal paths after generating appropriate search spaces, to solve puzzles like 8's Puzzle, River Crossing Puzzles, etc.
- Using Python Constraint to solve complex puzzles like Goloumbs Ruler, Einstein's Puzzle.
- Using Logic Programming to create a vast knowledge base using Prolog and then using queries and predicates to extract information from the Knowledge Database.

## **Password Strength Detection Using Machine Learning**

Using Classification methods for the detection of good/bad password using a csv database of breached passwords obtained from haveibeenpawned.com, including k-Means, Decision Trees, SVM, and Logistic Regression; and using Evaluation methods like F1 Score and Log Loss to find accuracy of predicted results.

## **Intelligent Detection of TV Viewer Engagement**

IoT based Computer Vision and Deep Learning project that analyses body language of TV viewers to determine level of engagement TV content/consumer analysis by TV network companies

#### **ACTIVITIES**

- Executive Assistant of soon to be Tau Beta Pi Chapter at AUS
- Volunteer member of Translators Without Borders
- Video Reviewer,
   International
   Conference on Image
   Processing by IEEE
- Finalist at the
   Undergraduate
   Research Competition
   at Abu Dhabi
   University
- Member of Upsilon Pi
   Epsilon Honor Society