Arnav Mangal

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- Computer Science Major Undergrad Student, University of Wisconsin-Madison, Class of 2024 | GPA: 3.89 | Included in UW Dean's List for academic performance
- High School Diploma, Saratoga High School, Saratoga, California | GPA: 4.28/4.0 (W)

RELEVANT COURSEWORK

Object-Oriented Programming and Data Structures using Java, Advanced Data Structures, Intro To Computer Engineering, Intro To Programming using Java, Intro To Computer Systems, Discrete Mathematics, Linear Algebra

TECHNICAL SKILLS

Java, Python, JavaScript, ReactJS, Bootstrap, HTML5, CSS3, SQL, C#, Unity Game Dev Platform, Git, GitHub, Machine Learning, C, Unix/Linux, Bash, Firebase

RELEVANT CERTIFICATIONS

- Web Design & Development Specialization, University of Michigan, Oct 2021
- IBM Data Science Professional, Feb 2021
- Introduction to Data Science Specialization, IBM, Jul 2020
- Python 3 Programming Specialization, University of Michigan, June 2020

SOFTWARE ENGINEERING PROJECTS

Software Development (Java & C languages), Fall 2021 - Spring 2022
- Created a Java graphical application and user interface to simulate the behavior of a set of fish in a fish tank using Java's graphical libraries.
- Created a Java desktop search application to find files with different search criteria, implementing Java ArrayLists and recursion.
- Built a Java program allowing users to search through a database of shows by word within a title or by the year. The search results can then be filtered by streaming services and then sorted by rating.
- Using an array-based Java heap implementation of a priority queue, created a system that allows users to keep track of assignments, based on their due dates.
- Built a memory tracker program in C allowing users to allocate, free, coalesce blocks of memory.

Front-end Web Development, Summer 2021 - Spring 2022
- Created a web application to grow the fan engagements of club teams. Developed a responsive UI to accommodate viewing experiences on desktop and mobile devices. The website updates recent statistics, provides social engaging - blogging and comments capabilities, highlights trending relevant

YouTube channels, and includes integration with Google's Maps APIs for commercial merchandise outlets. Technologies used: JavaScript, Bootstrap, HTML5, CSS3, Python, Github
- Built a web application keeping track of the frequency a user performs targeted activities during the day. Generates heat maps based on user inputted data. Technologies used: JavaScript, ReactJS, HTML, CSS, Figma, Bash, Git
- Built a web-based block jump video game using Unity, C#, WebGL, and JavaScript.
- Developed a web application that converts a user's speech recordings to text and stores the transcription in a Firebase database. Additionally, it authenticates users with Firebase. Technologies used: Javascript, HTML, CSS, Firebase

Machine Learning and Data Science, Summer 2020 - Spring 2021
- Used Machine Learning libraries to access images from an online newspaper, and perform image recognition analysis.
- Worked on a real world dataset of Chicago data portal. Composed SQL queries to extract and analyze data about the city's socioeconomic indicators, public schools, and crime stats.
- Technologies used: Python, Pandas, Numpy, Pillow, Tesseract OCR, OpenCV Computer Vision

AWARDS

- **Eagle Scout**: Joined Boy Scouts of America and earned the highest rank of Eagle. Worked as the leader for troop guides of the entire troop (>100 scouts), honored for mentoring and leading large teams effectively.
- **AP Scholar with Distinction**, Saratoga High School, Saratoga, California
- **Gerald Zappelli Scholarship**: Led high school's leadership team and student council for 4 years. Solo scholarship award for embodying school leadership values.