

AAYUSH MOTIANI

PORTFOLIO LINK

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SUMMARY OF QUALIFICATIONS

- Git and Github
- Java, C#, HTML, CSS, Javascript, ARM 32-bit Assembly, Markdown, LaTeX
- Proficient in Game Development with the Unity Game Engine
- Skilled with design tools like Adobe Photoshop, Adobe Illustrator, Figma

EDUCATION

B.Sc in Computer Science

University of California, San Diego

Sep 2022-June 2026

Relevant Coursework: Accelerated Intro to CS & OOP in Java, Linear Algebra, Basic Data Structures and Algorithms, Software Tools and Techniques Laboratory, Computer Organization and Systems Programming, Calculus/Science & Engineering, Discrete Math, Introduction to Computing

Relevant Experience

SOFTWARE DEVELOPMENT

Garage Startup Program

10/2023-12/2023

Maveric Studio, UC San Diego

- Created a VR world for **meta quest** and **android** called "Space Hunt", available on VRChat using the Unity Game Engine and **Unity API**.
- Switched from 2D game development in Unity to **3D** and also learned to use the **VRChat SDK** in the game engine.
- Overcame the struggle of debugging scripts in **UdonSharp**, which was a new experience since I am proficient and habitual in using **C#**.

Game Development Project

06/2023-09/2023

- Built a 2D platformer using **Unity** and Visual Studio(**C#**). Programmed intricate **player movement mechanics**, advanced **physics**, raycasts, precise **collision handling and trigger detection**, friction, acceleration, variable jump, coyote time, **ledge detection** and **camera shake** into the game for a better player experience.
- Developed a **combat/weapon system**, allowing the player to throw and recall an ax (similar to God of War), fire a gun and use a melee sword strategically to kill enemies, destroy walls etc., enhancing gameplay dynamics.
- Designed all the assets and animations for the game in **Adobe Photoshop** and **Illustrator**.

DESIGN

Visual Design Apprenticeship

01/2023-04/2023

Design Co (College Club)

- Utilized **Adobe Illustrator** and **Figma** to design several visually appealing and impactful designs on a weekly basis, strengthening my technical abilities and software expertise. Projects included posters, merchandise, UI/UX interfaces and many others.
- Consistency with work helped develop my 'eye' for design.
- Engaged in regular feedback sessions with senior mentors, applying their insights to enhance designs and cultivate a deeper understanding of best practices.

RESEARCH

Research Paper: Machine Learning Model for Crime Prediction

6/2022-09/2022

Lumiere Education

- Developed a machine learning linear regression model using Python in Jupyter notebook to predict future crime locations. I cleaned and processed a large dataset from Kaggle for model implementation and training.
- Reduced the dataset from over 600,000 columns to a manageable 20,000 columns, ensuring efficiency and effectiveness in model training and testing. I then split the data into train, test and validation sets and tested it for accuracy. Achieved a **56%** accuracy in the prediction model.

VOLUNTEERING

Covid-19 Volunteer

11/2021-12/2022

Karma Foundation

- Raised money to help the people of a cyclone-hit village and bought groceries and safety kits to help more than 100 families.
- Contributed remotely, where I was in-charge of their social media, content writing, data collection and tutoring kids with no access to education.
- During the COVID-19 pandemic, distributed masks and safety kits to people every week.