

Sanjay Salem



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Education

Carnegie Mellon University

Bachelor of Computer Science and Art
Minors in *Animation & Special Effects* and *Game Design*

Aug 2018 - May 2022

QPA: 3.3

Skills

Programming: C/C++, Java, Python, Javascript, jQuery, HTML/CSS

Design: ProCreate, Blender, Maya, Hitfilm Express, Adobe Premiere

Languages: English, Spanish, Conversational Japanese, Tamil

Areas of Interest: 3D Animation, Computer Graphics, AR/VR

Extra-Curriculars

Game Creation Society (GCS)

- Form groups and create a playable game within 3-4 months
- Requires teamwork, collaboration, communication, and knowledge of all 3 fields (music, art, programming) to make sure game elements are compatible

Artists Alley Club (AAC)

- Sell fan art at local comic and anime conventions nearby the Pittsburgh area
- Form a community with other local artists to receive and give feedback about each others' artwork

Japanese Student Association

- Organize events centered around Japanese culture, such as excursions and movies
- Spread awareness of traditional & modern Japanese culture throughout the Pittsburgh community

Project Experience

- Oct - Dec '20 **UI/UX Interface & Effects Functionality** 📍 CMU
A collaborative audio editing web application, with support for multiple tracks, music effects, upload/download, and track rearrangement.
 - Added HTML/CSS for cleaner UI, built in track rearrangement and audio draggability, and helped with converting effects and working on Django models.
 - Built with **Django, tuna.js, Sortable.js, and jQuery**
- Sep '20 **ChatBot & Web Scraping** Personal Project
Custom gaming Discord chatbot which responds and reacts to user messages, and performs web scrapes upon requests for game-related and player-related data.
 - Wrote bot from scratch with the Discord.py library, added web scraping functionality, and deployed to Heroku for continual running and use.
 - Built with **Discord.py, Pycharm, and Selenium WebDriver**
- Dec '19 **Human Pose Tracking & Augmented Reality (AR)** 📍 CMU
A program which displays an animated figure and plays its theme music once the user strikes a certain pose.
 - Modeled and rigged 3D character figure and helped integrate it with an AR pose tracker.
 - Built with **Blender, Maya, p5.js, & PoseNet**
- Nov '19 **Machine Learning & Hand Tracking** 📍 CMU
A recode of Space Invaders which uses hand tracking and gestures as controller movement and shooting input.
 - Modified feature extraction software and helped with UI development.
 - Built with **p5.js, ml5.js, & open source Space Invaders code**
- Mar '19 **3D Modeling and Augmented Reality (AR)** 📍 SteelHacks
An AR mobile app that displays device information in AR upon scanning a specific device. Awarded 3rd place at SteelHacks 2019, hosted by the University of Pittsburgh.
 - Integrated Vuforia Augmented Reality image database and modeled 3D elements for UI.
 - Built with **Firebase, Node.js, Unity Engine, Vuforia AR, & Blender**

Work Experience

- Aug'20 – now **Teaching Assistant, Course 15-210** 📍 CMU School of Computer Science
Parallel & Sequential Data Structures/Algorithms
 - Assisted with course logistics and planning, led and prepared recitations, held office hours to answer student questions, wrote grading scripts for exams, homework & labs, and facilitated students' learning.
- May'15 – now **Freelance Graphic Designer/Game Artist** Freelance
 - Designed logos and 2D/3D game assets for various projects & organizations. Involved customer engagement, graphic design & illustration, 3D animation/modeling experience, communication, and marketing.

Relevant Coursework

Comput. for Creative Practice
Real-Time Animation
Character Rigging

Web App Development
Animation Art & Technology
Computer Graphics