

# Sanjit Singh

10 Scalia Court, Hamilton, NJ 08690

sanjitpsingh@yahoo.com

<https://www.linkedin.com/in/sanjit-singh-66374b6a/>

609-529-2993

I am a highly organized and motivated student of computer science with a passion for technology. I am experienced in AR & VR cross platform applications development (Android, iOS). I have the skills and experience to conceptualize, build, test, and deliver. I am seeking an employment opportunity to increase my knowledge and skills level while contributing to the goals of an organization.

## **SKILLS**

**Programming Languages:** Java, C#, XML, HTML, CSS, Python, JSON, Swift, JavaScript, C/C++

**Hardware:** Arduino, Oculus Rift, Leap Motion, Microsoft Kinect, Smart Glasses

**Platforms:** Unity3D, Eclipse, Android Studio, Android of Things, Visual Studio, Photoshop, Arduino IDE, Oculus Rift, Google Cardboard, BT-200, Microsoft Kinect.

**Tools/Technologies:** Augmented Reality, Virtual Reality, Vuforia, OpenCV, Game Development, Game Design

## **EDUCATION**

Rutgers University, New Brunswick, NJ  
Bachelors of Science in Computer Science

June 2019 – May 2021

Mercer County Community College, West Windsor, NJ  
Associates of Science in Computer Science

Graduated May 2019

## **CERTIFICATIONS:**

- Business of Games and Entrepreneurship
- Introduction to the Internet of Things and Embedded Systems
- Principles of Game Design
- Introduction to Game Development by Michigan State University
- Beginning Game Programming with C# by University of Colorado System
- The Arduino Platform and C Programming

## **WORK EXPERIENCE**

New Jersey Institute of Technology @ Department of Biomedical Engineering  
Research Assistant

July 2019 – Present

Freelance Software Developer / Upwork

December 2016 - Present

- Currently working for various start-ups as a freelance developer in areas of game development, virtual reality, augmented reality, machine learning, and robotics.

Weill Cornell Medicine / Cornell Medical Center  
Research Assistant

April 2019 – June 2019

- In the engineering sub-team researching the integration between 3D segmented heart models derived from CAT scans and fluoroscopic images
- Utilizing 3D models & AR Visualizations to minimize error on syncing both CAT scans and fluoroscopic images for catheter approximation during cardiovascular Interventions
- Goal was to have a multi-purpose AR-assisted tool using Microsoft HoloLens to aid in intuitive cardiovascular interventions

- Developing projects using Unity3D to enhance physical therapy for patients who have Cerebral Palsy, Parkinson's, and other neurological conditions
- Building a custom asset library to integrate the use of Xbox Kinect to enable motion tracking in the use of physical therapy activities
- Implemented use of Stykz, a motion capture studio software to take real life motions and turn them into animations into games and further exporting all movements and motion tracking input into RAW data using JSON
- Reviewed the roles in clinical trials for usability purposes with patients. Analyzing inputs and gathering more clinical data between interaction of the patients through the games and recording their progress through our platform

Android Developer Intern / Konnex

June 2018 – September 2018

- Worked on social media platform for Android devices. Developed UI functionalities and main menu option for home page
- Implemented facial recognition using OpenCV to scan and link other users profile to each other's profile with in the platform
- Worked with backend tools such as Firebase, Google Cloud & Google maps for storing and capturing data & location
- Integrated Google Speech API to develop voice command options

Computer Science Tutor (Varsity Tutors & Wyzant)

July 2017 – December 2017

I offered Computer Programming sessions to School/College Students via Varsity Tutors and Wyzant. I have experience in teaching middle school students all the way through college. I prepared lessons and assignments which helped students to understand class assignments and projects. I tried to create a learning environment that was comfortable and interesting for all students. My sessions were very interactive with hands-on coding and execution.

**HACKATHONS**

April 2016 - Present

OperatAR

Dec 2017 - Dec 2017

An app that teaches users how to perform surgery and how to give clear directions in an operation room through Augmented Reality. The app was built using Unity3D, C#, Vuforia and Android Studio integrated through Google Cloud using speech to text API.

CelebralPalsyVR

Nov 2017 – Nov 2017

A series of VR-based games that help rehabilitate cerebral palsy patients who are partially able to move their feet and/or hands. The patient uses an Oculus Rift headset with Arduino sensors attached to their legs and hands. I worked extensively on the implementation of main menu, UI, VR input. Also helped develop certain movement that our VR game could use to help cerebral palsy patients. Worked on backend with Android Studio to use the gyroscope tool for our balance measurements with mobile Android devices serving as the sensors of physical motion.

VRClothing

March 2018 – March 2018

A VR Based Program that aims to help solve problems on trying out clothes before purchasing them. Our product VRClothing aims to solve this problem by providing users with a novel method of interacting with clothing items sold by retail companies.

**AWARDS/HONOR**

- Amazon Web Services - Best Use of AWS

HackRU

Developed a machine learning program that can diagnose Diabetes based on the information that patients provide to Amazon Alexa through a series of questions.

- Top 30 Hack

PennApps

Awarded Top 30 Hack at PennApps for developing a social media app using Facial Recognition to help others get to know each people faster. The app scans there face and through the datasets display their name and stores the exact day, time and location where they met.

## **VOLUNTEER**

### **HackRU**

- Mentor students on projects during the hackathon.
- Help with set ups and decorations
- Help run workshops with organizers
- Areas I help with are in game development, VR/AR and Android app development.

**HOBBIES:** Exercise, Video Games, Swimming, Music, Anime, Camping