# PRANAV SAINENI

M: +17134014915 | saineni.21@hotmail.com | Houston, Texas - 77054 | LinkedIn: https://tinyurl.com/y23csj7u

#### **EXPERIENCE:**

## Software Developer – Full Stack (Infodat International, Inc., Houston, Texas)

August 2021 - Present

- Created web applications using AngularJS, Highcharts, .Net, SQL, and Azure DevOps.
- Converted existing SSIS packages into Dell Boomi processes by understanding the existing integration process flow.
- Created model, view, and controllers using MVC framework and followed agile methodology to implement the projects.

#### **Instructional Assistant (University of Houston, Houston, Texas)**

January 2020 - May 2021

- Designed and developed a website using Django and MongoDB for students and faculty to rent electronic devices from the College of Pharmacy, Department of I.T.
- Worked with MySQL to modify, create and enroll students into courses on the college database.
- Assisted Faculty and students with classroom software and technology to enhance learning.

# Web Development Intern – Full Stack (Infodat International, Inc., Houston, Texas)

June 2020 - July 2020

- Programmed a responsive website using AngularJS and Highcharts, which provides a comprehensive insight into the performance of various oil wells to optimize operations and increase production.
- Engineered an alert system using AngularJS to send notifications to mobile devices for oil well readings.
- Developed Stored Procedures using SQL to store and manipulate the oil well readings and displayed said readings using Highcharts.

# Game Design Intern (PerspectAI, Hyderabad, India)

May 2017 – July 2018

- Programmed psychometric assessments such as the Clock test, Tunnel test, and Flicker test for the Oculus Go virtual reality headset using Unreal Engine 4 and C++ to gauge the speed, perception, and fatigue limit of the user.
- Developed eye screening tests such as Ishihara Test, Jaegers Test, Landolt C Test, Pelli Robson Test, Humphrey Visual Test, and Light Adaption Test for the Oculus Go using Unreal Engine 4 and C++. Which allowed users to self-diagnose various eye problems.
- Increased the video capture quality for virtual reality assessments by utilizing Nvidia Ansel plugin and taking an image at every point along a spline. Which increased the freedom the art team had to create 360 videos.
- Programmed various shaders for objects such as clouds, water, grass, and stylized rendering techniques such as celshading using GLSL, which allowed the art team to make stylized environments.

#### **EDUCATION:**

Master of Science in Computer and Information Sciences

University of Houston, Houston, Texas

Graduation: May 2021 CGPA: 3.5 / 4 Graduation: May 2019

**Bachelor of Technology in Computer Science and Engineering** 

Jawaharlal Nehru Technological University, Hyderabad, India

## **Certifications:**

- Professional Flow Developer Certification 2022 Boomi
- Associate Flow Essentials Certification 2022 Boomi
- Professional Developer Certification 2022 Boomi
- Associate Developer Certification 2021 Boomi

#### **TECHNICAL SKILLS:**

**Strong:** C#, C++, JavaScript, Python, C, Swift, Java, HTML, CSS, SQL, Unity, Unreal Engine 4, Django, MongoDB, AngularJS, React.js, Docker, Node.js, Git, Subversion, PyTorch, .Net Framework, Azure DevOps

Experienced: OpenGL Shading Language (GLSL), PostgreSQL, Amazon Web Services (AWS)

### **PROJECTS:**

## **Utilizing Genetic Algorithms to Solve Regression Problems (Machine Learning)** November 2020 – December 2020

- Performed exploratory analysis on algorithms such as Simple Genetic Algorithm, Variable Mutation, Crossover –
  Mutation Split Population, and Simulated Annealing Optimization to solve the optimization problem by expressing
  linear regression as an optimization problem.
- Summarized that all the algorithms converge to a similar enough solution with the only difference being the time taken to get there.

### **Exploratory Analysis on Music Genre Classification (Artificial Intelligence)**

April 2020 - May 2020

- Performed exploratory analysis on GTZAN and FMA using music dataset by using methods such as Random Forest Classifier, Convolution Neural Networks, and Bayes by backpropagation.
- Summarized that Bayes by backpropagation is not suitable for analysis of such data but using the same approach on Spectrogram data might result in different accuracies.

## Please Chai Again (Intermediate Game Development)

January 2020 - May 2020

- Developing a 2D indie rogue-like game using the Godot Engine with features such as procedural level generation, dynamic enemy pathing, and five different projectile paths.
- Implemented and designed a crafting system for the user to make unique projectiles.
- Implemented a status system to apply status effects to the enemy and player characters.

## **Image Classification App**

October 2019

 Performed exploratory analysis on GTZAN and FMA using music dataset by using methods such as Random Forest Classifier, Convolution Neural Networks, and Bayes by backpropagation.

# **YouCommute (Ubiquitous Computing)**

September 2019 - December 2019

- Created an app for iOS using Swift which automatically keeps track of your daily commutes, imports events with destination field from the apple calendar, and sends notifications before the start time of the commute.
- Implemented a notification system to keep track of upcoming commutes and send notification appropriately.

#### **ACTIVITIES:**

#### **Moderator - Photoshop Workshop**

February 2019

Conducted a one-day workshop on photoshop for an approximate crowd of 150.

#### **Moderator - Game Developer Workshop**

January 2019

• Conducted a two-day workshop on unity and blender for a crowd of 200.