# Ryan Jacob Pfeifer

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#### EDUCATION

# • B.S. Computer Science Texas A&M University

May 2020

- o GPA: 3.96
- Minors: Game Design and Development, Cybersecurity
- Related Coursework:

Game Development Operating Systems

Game Design Software Reverse Engineering
Level Design Computer and Network Security

Computer Graphics Artificial Intelligence

### > WORK EXPERIENCE

### • Software Engineering Intern at Synchrogrid

May 2019 - August 2019

- o Worked at a startup company on the back-end of a smart grid Node.js application in C++
- Utilized an industry-specific language (CUPL) to automate relay settings calculations on power lines
- o Made and published a Visual Studio Code syntax highlighter for CUPL which has been installed over 160 times
- o Built an automated testing framework for the back-end of the application using Jest and the SheetJS API

### COMPETITIVE PROGRAMMING

## • Chillennium 48 Hour Game Development Competition - 1st Place Overall Winner

Fall 2019

- o Competed in an interdisciplinary team to develop a video game in 48 hours using Unity and C#
- o Developed gameplay mechanics and AI behavior
- Won 1st Place Overall out of over 90 games judged with around 400 participants

# TAMUhack 24 Hour Coding Competition

Spring 2019

- o Participated with a team of programmers to create a web-based multiplayer game
- o Programmed the front-end of a Node.js application using HTML, CSS, and JavaScript
- HowdyHack 24 Hour Coding Competition

Fall 2018

Used C# and Microsoft Azure's machine learning library to make a chat-bot prototype

#### > PROJECTS

### • Senior Capstone Design Project - Team Leader

Spring 2020

- o Leader on a team of programmers tasked with creating a semester-long web application project
- o Implemented front-end systems using HTML, CSS, and JavaScript with the anime.js animation library

### • Game Development Project - Frog and Croc

Fall 2019

- o Worked on an interdisciplinary team to develop a semester-long video game project using Unity and C#
- o Created gameplay mechanics, programmed player controls, and designed levels
- Highly praised by a panel of professional game developers

# Personal Project - Summon the Spell Book

Summer 2019

- Collaborated with an interdisciplinary team to develop a game using Unity and C#
- o Programmed character controls, developed AI behavior, designed gameplay mechanics, and designed levels

# Volunteering - Coding Lessons for 5<sup>th</sup> Grade Students

Fall 2016 - Spring 2019

- o Organized and prepared slideshows and code samples for the Hour of Code using Google Slides and repl.it
- Taught lessons covering various programming concepts such as AI, cryptography, and binary numbers

#### Personal Project - Music Visualizer

Summer 2018

- o Created a webpage to visualize the waveform of any given .mp3 file
- Used HTML, CSS, and JavaScript with the Web Audio API to display dynamic graphics

#### Interactive Virtual Environments Project - Reflector VR

Spring 2019

- o Produced a VR game with an interdisciplinary team using Unity, C#, and HTC Vive hardware
- Utilized the SteamVR API to create gameplay mechanics, program AI behavior, and design levels
- Demoed the game at the Vizagogo Visualization Showcase and allowed attendees to play the game

#### SKILLS

- Programming Languages
  - o C++, Java, C#, HTML, CSS, JavaScript, Python, x86 Assembly
- Software
  - o Git, Unity, OpenGL, GLSL, Android Studio, Node.js