**EDUCATION:**

**SHAWNEE STATE UNIVERSITY (08/2018 – CURRENT) Graduating in April 2022**

* 3D SIMULATION/GAME ENGINEERING TECHNOLOGIES *(****MAJOR****) w/* MATHEMATICS *(****MINOR****)*
* GPA 3.87 (***Dean’s List***)

**Supplemental Instructor (SI)**

* Selected by professors, based on exceptional in-class performance, to be an SI responsible to be available to all students in need of outside classroom tutoring in the domains of *College Algebra, Trigonometry, Calculus, and Intro to Game Programming*
* Actively finding the best possible way for each student to learn; to better help them understand the course content
* Having to find a middle ground when dealing with groups of students at a time to accommodate everyone’s needs. As well as obtaining the communication/leadership skills so that I’d be able to accommodate everyone as needed

**NOTEWORTHY SELF TRAINING:**

|  |  |
| --- | --- |
| **Self-Directed Projects** | **Skills Attained** |
|  |  |
|  **Problem #1:** Given a historical set of data for a stock/crypto, determine whether or not we should buy more  sell the particular stock/crypto. **Strategy:**Create a stock/crypto bot that can be left to runthat will exercise certain algorithms and techniques to determine if it’s appropriate to buy or sell a stock. | * Was able to create, from scratch, a crypto/stock trading bot that periodically tests the market and determines if it’s appropriate to buy or sell the ticker at hand.
* Taught myself the “Robin Stocks” API library to give the bot the ability of actually buying and selling the desired ticker. As well as using several other new libraries I needed to learn so I could give the bot certain functions, including: MatPlotLib, Keyboard, Pandas and DateTime.
* Had to do my own research and learn different trading strategies and how one might automate it.
* The strategy I landed on had to do with using the ticker’s Relative Strength Index (RSI) to determine if it’s a idea to buy, sell or do nothing.
* Implemented a way to take raw market data (retrieved from “Robin Stocks”) for a ticker and calculate a history of RSI values that the bot uses to make a buy/sell decision.
 |
|  **Problem #2:**Given a group of two people (including myself),  make a game from scratch using Unreal with  little to no experience in the engine and being  the only programmer. **Strategy:**Teach myself as much as I can as I progress  from problem to problem. Utilizing as many  programming practices as I can while I progress. | * Successfully created a game start to finish, from scratch, in Unreal Engine 4 as the only programmer.
* Got to utilized the set of skills I’ve been learning to implement several different game mechanics and systems.
* A much more functional understanding of Unreal Engine 4 after much research and trial and error while working through this project.
* A variety of programming skills pertaining not only to general tasks, but specifically to tasks and algorithmic techniques pertaining to 3D space with vectors.
 |
| **Problem #3:**When given a set of data with missing information that has some sort of solution to it what is the best way to find that solution?**Strategy:**One approach would be to try every single possible combination of the data and its missing pieces; however, this is far too slow and computationally expensive. | * Was able to incorporate a backtracking algorithm to go through and solve any given (solvable) sudoku puzzle using graphics to show the process and results.
* I obtained a much better understanding of how real-world algorithms themselves actually work and why we use them.
* Since backtracking heavily works with function recursion I was forced to come to a better and more functional understanding of recursion.
* Figured out and used different debugging strategies from what I normally use since I was dealing with a method of programming, I was not very used to.
 |
| **Problem #4:**Given one weekend (48hrs) and a random topic, create a fully functioning game based on that topic (referred to as a Game Jam).**Strategy:**Working with a small group of people, create an idea, divide and conquer, and work as fast and efficiently as possible. | * Gathered great experience in communicating in a hectic group environment as well as quick planning while working with varying sizes of teams (3-6 people)
* Since the time constraint is a major factor in Game Jams it forced me to work fast while also staying diligent with my code. As a result of this I was forced to find new ways to solve problems quickly (debugging) under these tight time constraints.
* Since I was working with groups, I gained valuable first-hand experience using various VCS’s such as TortoiseSVN as well as GIT.
* Having participated in 3 total Game Jams, all resulting in a “finished” functioning game. I’ve been able to take on different roles on the team each time allowing myself to gain experience in roles like the lead programming or lead game designer etc.
 |
| **More To Come:** |  |

**SKILLS:**

* Currently proficient in Python, C++, C, and C#
* Experienced in Unreal Engine 4 C++/Blueprints doing work with network programing, AI programming, and general gameplay programming, with some experience in Unity as well
* Experienced in Arduino I/O work
* Proficient in higher math studies such as: calculus, trigonometry, linear algebra, calculus-based physics, and 3D Mathematics
* Worked on (and currently working on) coding projects for personal benefit outside of the classroom to help better my knowledge and experience
* Experienced at multitasking, communicating with groups of individuals, and working under time constraints

**WORK EXPERIENCE:**

**Shawnee State University, Resident Assistant (08/2020 – Current)**

* Selected from a pool of over 65 applicants to be a Resident Assistant at Shawnee State
* Complete numerous different types of training including: conflict mediation, title IX, and crisis management
* Real world experience with conflict mediation and conflict resolution between residents
* Responsible for ensuring a safe living and learning environment for my residents
* Required to fill out well written, detailed, paperwork that could be used in legal situations
* Put on monthly building programs(events) for my, and other RA’s, residents to attend

**LSI INDUSTIRES, ASSEMBLY/GENERAL (06/2018 – 8/2021)**

* Completed LSI standardized training for several different positions
* One of two people selected to dismantle fixtures adding to the company’s bottom line
* Selected to work on the CRU assembly line, one of the most profitable lines of assembly, based on a good work ethic resulting in a consistently higher productivity
* Responsible for the overall productivity for the most profitable line of assembly
* Entrusted to train new employees on detailed wiring for light fixtures

**ACTIVITES:**

* Active on the campus Student Programming Board helping setup for various campus events to promote student involvement and improve campus life
* Participate in different clubs on campus such as our “Skaggs House” club where we focus on different activities on campus to bring together underclassmen to help them in any way possible
* 4 years of soccer, track, and cross country in high school receiving various awards such as: MVP, three years of being team captain, three sport award, best defense x2, warrior award, varsity all 3 sports, over 10 certificates of honors

**VOLUNTEER EFFORTS:**

* Consistent extra volunteer efforts for my campus’ Student Programming Board with meeting attending and more than required event assistance
* Worked with professors and peers in the formation of our “Skaggs House” club to aid incoming freshman
* Volunteered with a non-profit dance theater to assist in various different productions.
* Volunteered at local township garden in support of community elderly program
* Volunteered throughout all 4 years of high school supporting different large sporting events