Joshua Zimmerman

1317 Sand Verbena Way
Fort Worth, TX 76177
(817) 673-3451
joshua.curtis.zimmerman@gmail.com

Objective

I am actively seeking a Computer Science internship that will allow me to apply my technical knowledge, problem-solving skills, and passion for innovation.

Work Experience

February 2023 - Present

Texas A&M University - *Student Technician at Help Desk Central*

- Assisted a campus of nearly 100,000 members, addressing diverse technology-related issues like network troubleshooting, email traffic, and account management
- Reinforced strong customer service skills by speaking with campus members over the phone and by communicating complicated issues to my supervisors
- Received all excellent quality assurance scores as a reflection of my professionalism and efficiency

May 2022 - August 2022

The YMCA of Metropolitan Fort Worth - *Aquatics Coordinator*

- Put together work schedules for employees (head guards, instructors, and lifeguards) on a weekly basis
- Used feedback from patrons and staff to build a better pool environment. An example of this would be the swim lesson break system that I implemented
- Led staff at multiple YMCA facilities with different needs and expectations for each location
- Carried out pool maintenance (balancing pool chemicals, equipment servicing/procurement, etc.)
- Conducted performance evaluations of employees with a focus on highlighting strengths

May 2019 - August 2022

The YMCA of Metropolitan Fort Worth - *Aquatics Swim Instructor*

- Maintained professionalism in high-pressure environments
- Taught swim lessons to a variety of students including seniors and children with disabilities
- Worked with the SAW (Safety Around Water) outreach team to provide free swim lessons in lower-income areas

May 2021 - May 2022

The YMCA of Metropolitan Fort Worth - *Aquatics Head Guard*

- Upheld core values and practices of the YMCA and inspired others to do the same
- Applied problem solving to help the aquatics program run effectively and consistently (swim lesson rearrangement, dealing with untimely weather, being a mediator in patron disputes, etc.)
- Created lesson plans and administered weekly training to lifeguards

Education

August 2021 - Present

Texas A&M University, College Station, TX

- I am currently a Computer Science major with a minor in Statistics in my Junior year (3.79 GPA)
- Coursework: CSCE 121 (C++), CSCE 221 (C++), CSCE 314 (Java), CSCE 312 (Assembly), STAT 211 (R)

Flip over to see what im capable of

Skills

- Microsoft Office software and LaTeX
- Advanced programming knowledge in C++ and Python with intermediate knowledge in React.js, Java, Javascript, and Assembly
- Knowledge interacting with Rest APIs
- Familiar with GitHub, Git, VSCode and all Jetbrains IDEs
- Basic knowledge in Docker

Programming Projects

HDC Interactive Dashboard

- A collaborative react dashboard project displayed in the call center at my current job 24/7 that uses API endpoints and web scraping to get live data
- Shows how many calls are in the call queue, how many tickets are in each assigned queue,on-duty supervisors, all current technicians and their current status, etc.
- Front end and back end designed using React.js with API calls done using python

Lorenz Attractor Simulation

- Written in C++ using SDL2 to display graphics, gives a visual representation of a Lorenz attractor in real time
- Allows you to change the variable values of the shape being drawn to allow for the drawing of hundreds of combinations while giving you a fully customizable 3D view of what is being drawn
- Made a Docker container that allows all Windows users to run a version of this program on their computer

Random Number Generator

- Learned basic encryption and seeding techniques to implement several variations of a physics-based random number generator
- In final stages of development, implemented a C++ variant of the Mersenne Twister that allows the user to give a specified range of numbers and request any amount of random numbers be generated
- Using Chrono as a measure, generator can generate 10 million sufficiently random numbers in around 230 miliseconds on my personal desktop

Miscellaneous Visualizations and Other Small Projects

- Used C++ to make visual, real-time, simulations of interesting mathematical phenomena
- A sorting algorithm visualizer with selectable algorithms
- Continuous surface collision simulator with thousands of particles to represent floating point error
- A gravity simulation with interactive particles, optimized with the Barnes-Hut Algorithm
- Made a wordle solver with a custom algorithm that solves any wordle-endorsed word in 3.3-3.4 guesses

Resources

- Github (https://github.com/joshuazimm)
- LinkedIn (https://www.linkedin.com/in/josh-z)