Derek Ritsch

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EDUCATION

University of Nevada - Las Vegas Bachelor of Science in Computer Science

GPA: 3.7/4.0

Expected: May 2022

University of Wisconsin - Eau Claire *Major: Computer Science*

September 2017 - May 2019 GPA: 3.6/4.0

EXPERIENCE

University of Nevada - Las Vegas

Engineering Tutor

June 2021 - Present

- Consistently serve as a reliable tutor for 20 hours per week on topics including C++, MIPS, and digital logic
- Assist students with study guides, organization skills, and selecting the most suitable development tools
- Work with students to build a deeper foundation of undergraduate Computer Science concepts
- Provide structured study time for peers to review subject material and enrich learning strategies

Teaching Assistant

August 2020 - Present

- Facilitate 6 hours of weekly office hours and appointments for students to review and solidify C++ concepts
- Courses covered include Computer Science II, Computer Organization twice, and Engineering 101
- Create supplemental content to accelerate students with resources on project development and design
- Grade and provide feedback for 120+ students on exams, worksheets, homework, and programs
- Record assignment overviews, exam reviews, and short content summaries for remote flexibility

Peer Mentor January 2021 - May 2021

- Assisted mentees 1-on-1 to navigate through proper university resources, and foster academic independence
- Directed 30+ first-year Engineering students on a stable and well-planned path to graduation
- Supplement mentees' feeling of connection and belonging at UNLV through group inclusion and team games
- Served as a primary point of contact for campus resource availability and services

PROJECTS

Helmholtz Cage GUI, React, HTML, CSS, Git

August 2021 - October 2021

- Assist in leading the ongoing design and implementation of a GUI to control Nevada's first CubeSat
- Fortify the codebase to be lightweight, efficient, and readable while adding features for the 2023 launch
- Utilize React to develop the GUI's framework for the satellites controls and data output

Catch Two Mathematics, Altera Quartus

April 2020 - May 2020

- Nominated 3rd place for the annual Junior Design Competition comprised of 1st-3rd year Engineering students
- Presented as a team of 2, a digital circuitry FPGA mathematics game to the Junior Design Competition
- Deployed two numbers and a selectable operation, players must solve an equation within the user-set time

SKILLS

Languages – C/C++, Java, SQL, MIPS, HTML/CSS, Bash, R

Tools/Frameworks – Git, React, JUnit, MySQL Workbench

Operating Systems - Linux (Ubuntu), Windows

INVOLVEMENT

Association for Computing Machinery UNLV, Vice President

September 2017 - Present

- Participate in weekly events to prepare for competitive programming competitions
- Competed in the 2021 International Collegiate Programming Contest (ICPC)

RebelSat UNLV. Member

August 2021 - Present

- Work as a team to prepare for the 2023 launch of Nevada's first cube satellite to space
- Design the user interface schematics, and update the team weekly on new features to implement
- Help lead the software team to create a long-standing platform for future UNLV students