Heagen Bell

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Summary — Communicative undergraduate research assistant with developed software development, web development, and data science skills with a passion for learning new skills and knowledge to contribute to academic research and the tech industry to innovate further to benefit the general public. Proficient in utilizing research, critical thinking, problem-solving, team collaboration, communication, and technical skills to guide and find solutions to personal, team, and company goals.

Technical Skills

Languages Python, Java, HTML, CS, JS
IDE/Tools VS Code, Git, IntelliJ, Blockbench, Gradle, Forge
Databases mySQL

Work Experience

University of Kansas Center for Undergraduate Research and Fellowships **August 2024 – Current**
Assistant Researcher
- Collaborated alongside Professor Dr. Sun in the field of high-performance computing and data science focusing on matrix computations and algorithms
- Design and animate the visualizations of HPC algorithms to meet research goals
- Gain hands-on experience utilizing Python and Manim library to visualize algorithms
- Plan and organize research projects, create timelines, and track progress to ensure steady and successful progression

Other Work Experience

Chick-fil-A **May 2023 – August 2024**
Seasonal Front of House Team Member and Trainer
- Provide excellent and efficient service to ensure customer satisfaction contributing to the company's goal of a fast and positive environment
- Collaborate and communicate effectively with team members and leaders to ensure peak-hour demands are met
- Trained and mentored new staff in restaurant procedures, food safety, and customer service standards
- Monitor and report new hire's performance to foster skill development and utilize strengths/weaknesses for the company's goals

Education

University of Kansas
Bachelor of Science in Computer Science

Projects

Visualizing HPC and Data Science Algorithms **August 2024 – Present**
- Develop extendable and animated visualizations of high-performance computing (HPC) algorithms using the Python and Manim library to grant greater access with understanding complex mathematical concepts for Dr. Sun's students
- Illustrate custom animations for complex matrix operations such as multiplication and checkerboard distribution to improve comprehension of data distribution and computational operation
- Utilize the Manim library to produce engaging and high-quality visualizations that improve the student body's understanding of computing and algorithm techniques

Personal Portfolio Website **August 2024 – September 2024**
- Design and implement a personal portfolio website using Python (Flask) and HTML, CSS, and JS (Bootstrap) to showcase personal achievements, projects, and skills
- Integrate responsive front-end development to ensure a positive user experience across all devices
- Implement structured back-end development using Python including form-handling creating an interactive user experience
- Publish and register portfolio website using Namecheap alongside cPanel for site management to generate public access to all users

Minecraft Modification **January 2024 – May 2024**
- Develop a custom Minecraft Mod using Java, JS, and Forge enhancing regular gameplay with new features such as intractable blocks, items, mob entities, and custom data-generated world environments to provide new gameplay for user engagement
- Utilize Java to integrate new and custom gameplay mechanics, logic, and events alongside utilizing JS for compatibility between Minecraft's core mechanics to the mod engine (Forge API) and connect new mechanics to the user interface