AJ Hanus

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Experience

SPIRE REU Summer Program
Summer 2018   *Ames, IA*
Undergraduate Research Assistant
- Created a data visualization learning tool to help underdeveloped communities better understand indoor climate control theories
- Collaborated with two other REU students to present our progress to our mentor, professor, and at a poster symposium
- Conducted a pilot study to determine the usefulness of the tool
- Wrote a research paper outlining our process and discoveries

Virtual Reality Application Center
Fall 2017 - Present   *Ames, IA*
Undergraduate Research Assistant
- Developing visualizations for large datasets to recognize trends between certain variables
- Optimizing Bayesian Networks to improve accuracy on categorical prediction
- Developing Unity VR environments to analyze their learning capabilities

Iowa State University
Fall 2017   *Ames, IA*
Supplemental Instructor for Physics 222
- Created three weekly study sessions to aid in student comprehension and exam results
- Hosted exam preparation sessions attended by 70+ students

Spring 2017   *Ames, IA*
Teacher's Assistant for Cpr E 185
- Instructed students on how to program an Arduino Esplora
- Hosted weekly office hours to help students with coursework
- Answered questions pertaining to lab materials and lectures

Garmin International, Inc
Summer 2017   *Olathe, KS*
Software Engineering Intern
- Developed functionality to save the cars current location to the map with the click of one button for the Honda Odyssey and Accord dashboard navigation
- Presented work at a demo show to employees at Garmin

Prizm Labs
Summer 2016   *San Fransisco, CA*
Software Engineering Intern
- Developed demo applications for custom tablet hardware
- Presented our custom tablet hardware at the E3 conference
- Managed a team of three interns delegating development tasks
- Utilized Agile to keep team on track and complete our projects in a timely fashion

Education

Iowa State University, expected May 2020
B.S. in Computer Engineering,
Minor in Physics, Certificate in Leadership
GPA: 3.98

Newman Catholic High School, May 2015
Mason City, Iowa
GPA: 4.0 - Salutatorian

Projects

Indoor Climate Control Data Visualization Tool
Developed a website utilizing the ReactJS and D3 javascript frameworks to teach indoor climate control concepts to under served communities in Iowa.

Lot Monitor
A program used to analyze surveillance footage to monitor a parking lot. Utilized OpenCV to detect if the correct vehicles were parked in the correct parking spots.

Pocket Closet
An android application that randomly chose the user an outfit depending on fashion trends and options the user requested.

Activities and Awards

- Iowa State Honors Program
- Studied abroad in Hong Kong
- Vice President of the ISU Sailing Club
- Led on-campus Mental Awareness Event ("*Lending a Helping Hand*")
- Tau Beta Pi (Initiated member)
- Iowa State University's Award for Competitive Excellence

Technical Skills

Strong: Unity, Python, C++, C#, Javascript, C, Java, Virtual Reality, Windows, Mac OS

Experienced: React, Windows Mixed Reality, Tensorflow, OpenCV, HTML, Bootstrap

Proficient: Blender, D3, Linux, MatLab, SQL, JQuery, CSS