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AJ Hanus

Education

Iowa State University

(expected May 2020)

B.S. in Computer Engineering, Minor in Leadership with Honors

GPA: 3.96

Experience

The Boeing Company – Data Science Intern

Seattle, WA (Summer 2019)

- Improved the current machine learning model from an F1 score of 80% to 95% on a bill of materials database
- Created a knowledge feed engine using React JS for collecting aviation questions and answers to train a Natural Language Processing question answering system and hosted it using Kubernetes and Docker
- Developed an online form using React JS for collecting errors in the close out processes of training programs which saved more than 40 working hours a week for other employees

Virtual Reality Application Center – Undergraduate Research Assistant

Ames, IA (Fall 2017 – December 2019)

- Explored utilizing passive haptic interactions in multiuser virtual reality training environments
- Utilized the Unity 3D game engine to develop applications for the HTC Vive, and Microsoft Hololens
- Presented at the IEEEVR 2019 international conference in Osaka, Japan and received Runner-up in the 3DUI contest
- Published a paper as the second author in the I/ITSEC 2019 conference held in Orlando, FL

Iowa State University – Supplemental Instructor and Teacher's Assistant

Ames, IA (Spring 2017 - Fall 2017)

- Created weekly study sessions to aid student comprehension and improve student's exam results
- Directed weekly labs for students in an introductory Computer Engineering course
- Analyzed code written by inexperienced developers and taught best practices to help the students improve their abilities
- Hosted exam preparation sessions attended by 70+ students

Garmin – Software Engineering Intern

Olathe, KS (Summer 2017)

- Developed software to provide a new feature for the dashboard navigation in the Honda Odyssey and Accord
- Created an easy to use update system for salesman to demo new features that would be added to future systems
- Gained experience writing code in C++ and Qt, a front-end JavaScript framework

PlayTable – Software Engineering Intern

San Francisco, CA (Summer 2016)

- Developed demo software using the Unity game engine and C# for the PlayTable hardware system
- Managed a team of two other interns delegating development tasks
- Gained experience assembling custom tablet hardware

Personal Projects

- **CalcHub** – An online math editor for engineering calculations. On CalcHub, you are able to search, execute, modify, and share math with anyone. Live at CalcHub.co.
- **Boeing Parts Similarity** – Identified similarities between airplane parts using a large aviation dataset, python, and Tensorflow. The similarities were then used to identify the impact new parts would have on a maintenance manual.

Activities, Awards, and Publications

- Iowa State Honors Program
- IEEEVR 3DUI Contest Runner-up
- Vice President of Iowa State Sailing Club
- Miller J., Hanus A., Winer E. (2019). Utilizing Commodity Virtual Reality Devices for Multi-user Training Simulations. In Interservice/Industry Training, Simulation, and Education Conference (I/ITSEC).
- Hanus, A., Hoover, M., Lim, A., & Miller, J. (2019). A Collaborative Virtual Reality Escape Room with Passive Haptics. In Proceedings IEEE Virtual Reality.
- Studied abroad for one semester in Hong Kong
- Executive Member of ISU's Out of the Darkness Walk
- Led on-campus Mental Awareness Event

Technical Skills

TypeScript, React, Mobx, Node JS, Python, Unity, C#, Tensorflow, C++, Javascript, C, Java, Virtual Reality, Mixed Reality, AWS, CSS, Linux, OpenCV, HTML, Bootstrap, Blender, D3, MatLab, SQL, JQuery