

Experience

Dynetics

Summer 2020 - Present

Huntsville, AL

Computer Engineer III

(C++, Python)

- Utilized Docker, SKLearn, HDFS, Hive, Presto, Postgres, Redis, and ZMQ for the DARPA Air Combat Evolution T3 team which seeks to develop AI for large force air tactics
- Modified a large existing code base to conform with a new messaging system using C++ and Qt while propelling the project ahead of schedule
- Received highest possible score on my performance review for deliverables brought to my team after 4 months at the company
- Managed my team as scrum master utilizing Agile with JIRA to ensure all team members were busy and happy with their work

The Boeing Company

Summer 2019

Seattle, WA

Data Science Intern

(Python, TypeScript, React)

- Improved the current model by implementing a character to vector algorithm for part numbers on a bill of materials database
- Created a knowledge feed engine using React JS for collecting aviation questions and answers to train a 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 40 working hours a week for other employees

Virtual Reality Application Center

Fall 2017 - Winter 2019

Ames, IA

Undergraduate Research Assistant (Unity, C#, HTC Vive, Hololens)

- Explored utilizing passive haptic interactions in multiuser virtual reality training environments on the HTC Vive
- Presented at the IEEEVR 2019 international conference in Osaka, Japan and received Runner-up in the 3DUI contest
- Published a paper as second author in the I/ITSEC 2019 conference held in Orlando, FL

Garmin International, Inc

Summer 2017

Olathe, KS

Software Engineering Intern

(C++, Javascript, Qt)

- Developed code using C++, Javascript, and Qt to improve the dashboard navigation for the Honda Odyssey and Accord
- Created a demo to show new map updating feature that would be added to future systems

Iowa State University

Spring 2017 - Fall 2017

Ames, IA

Supplemental Instructor

(Leadership, Teaching)

- Created weekly study sessions to aid student comprehension and exam results
- Hosted exam preparation sessions attended by 70+ students
- Developed lesson plans based on missed or highly questioned material during lecture

Education

Iowa State University, expected May 2020

B.S. in Computer Engineering,

Minor in Leadership

GPA: 3.98

Newman Catholic High School, May 2015

Mason City, Iowa

GPA: 4.0 - Salutatorian

Projects

CalcHub

An online math editor for engineering calculations. On CalcHub, you are able to be search, execute, modify, and share math with anyone. Live at calchub.co.

Boeing Part 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.

Escape Room in Virtual Reality

Created a multi-user escape room in a virtual environment for the HTC Vive with the Leap Motion for tracking hands. Implemented passive haptics to increase emersion. Received Runner-up at the IEEEVR 3DUI contest.

Activities and Awards

- Active Secret Clearance
- IEEEVR 3DUI Contest Runner-up
- Iowa State Honors Program
- Studied abroad in Hong Kong
- Vice President of the ISU Sailing Club
- Executive Member for Iowa State's Out of the Darkness Organization
- Led on-campus Mental Awareness Event ("Lending a Helping Hand")
- Published in the I/ITSEC 2019 conference proceedings

Technical Skills

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