Christopher (CJ) Hansen

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Work and Research Experience

OHIO STATE UNIVERSITY / WEXNER MEDICAL CENTER GRADUATE RESEARCH ASSOCIATESHIP, Columbus, OH *(June 2018 – Present)*

Research Associate: Funded for full-time human factors engineering research in the field of healthcare within the Wexner Medical Center. Currently investigating predictive models which utilize hospital patient electronic health record data and their integration into high-risk real-work scenarios. Programming and assessing functional qualities of machine learning models such as usability, transparency, and interpretability.

QUALTRICS SOFTWARE COMPANY, Provo, UT (*September 2017 – June 2018)*

Technical Product Specialist: Worked with customers to find personalized solutions through the Qualtrics platform for their business and research needs. Created surveys for Fortune 500 companies and top research institutions using Qualtrics platform software and JavaScript to implement custom survey functionality. Achieved Bronze-Level Qualtrics Certification during time of employment.

NORTHWESTERN UNIVERSITY HAWC+ INSTRUMENT DEVELOPMENT TEAM, Evanston, IL *(June 2016 – September 2017)*

Data Analysis Programmer: Wrote steps in the data analysis pipeline for HAWC+: a scientific instrument commissioned to be attached to the NASA SOFIA Airborne Telescope by December 2016. Using Python, created programs that calibrate the telescope and instrument, as well as programs that analyze and reduce raw data during flight. Accompanied and ran the instrument on fourteen missions.

PROFESSOR GILES NOVAK STAR FORMATION GROUP, Evanston, IL *(December 2013 – June 2016)*

Student Researcher: Collaborated with professors and post docs to study the effects of galactic magnetic fields on the birth of stars in active star forming regions. Using Python, wrote software that combs through databases of star polarization vector catalogs for data and translates the data into vectors that are overlaid onto images of nebular clouds. Was awarded a number of grants for continuation of research: NASA Illinois Space Grant *(Summer 2015)*, Northwestern Undergraduate Research Grant *(Summer 2015)*, and BLAST-POL Undergraduate Award *(December 2013-June 2016)*

LOCKHEED MARTIN SOLAR AND ASTROPHYSICS LABORATORY/ STANFORD UNIVERSITY, Palo Alto, CA *(June 2014 – September 2014)*

Solar Physics Research Internship: Worked as a researcher for the premier institute for solar physics in America. Using the IDL programming language, created images with data from the NASA IRIS satellite that mapped active regions of the sun, tracking the directional flow of plasma during solar flares. Internship resulted in a formal presentation to researchers at Stanford University.

Leadership Experience

President of the Human Factors and Ergonomics Society (HFES) Ohio State Chapter, Columbus, OH *(August 2018 – Present)*

- Elected leader of a combined graduate/undergraduate student professional association connected with the national HFES organization. Group focuses on fostering connections within the human factors community and arranging educational events as a means of public outreach.

Education

The Ohio State University, Columbus, OH *(June 2018 – August 2020)*

M.S. Industrial and Systems Engineering

Northwestern University, Evanston, IL *(September 2012 – June 2016)*

B.A. Physics, Awarded Physics & Astronomy Departmental Graduate Honors

Honors/Awards

Best Senior Thesis Award 2016

Technical Skills

Ohio State Web Development Boot Camp: Completed 6-Month Course in Full-Stack Web Development honing skills in various front-end and back-end technologies including Node, Express, MySQL Workbench, Handlebars, client-side and server-side APIs

Computer Languages/Programs: Proficient in HTML, CSS, JS, Python, R, SQL, C++, VBA / Microsoft Office Suite, GIMP