JACOB NICHOLAS HIRST

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EDUCATION

University of Utah Mechanical Engineering (ME) BS with minor in Comp Sci – 3.47 GPA

Pursuing Thesis MS in Mech. Engineering focus in Data Science – 3.66 GPA – Grad Spring 2024

PROFESSIONAL EXPERIENCE

Northrop Grumman – Mechanical Engineer Intern working on payload design for GBSD project. (May 2020 – March 2021)

Undergraduate Researcher – Undergraduate Student Researcher in the Utah Wearable Robotics Lab experience with Prototyping, Controls Systems, and Machine Learning. (January 2022 – August 2022)

Master's Student Researcher – Master's Thesis Student Researcher in the Multiscale Mechanics and Materials Lab experience in ABAQUS dynamic simulations and Deep Learning. (August 2022 – Present)

RELEVANT SKILLS

- Python
- Java
- C#
- MATLAB
- Github

- TensorFlow/Scikit-Learn
- Pandas/NumPy
- ABAQUS
- Microsoft office
- CAD design

RELEVANT PROJECTS

- Implemented ML model using a machine learning library called BINGO to create interpretable models predicting unseen shapes of a continuum manipulator controlled with Arduino, and prototyped using Solidworks and 3d printing. https://github.com/jakehirst/UROP-SPUR

- Creating deep learning model with TensorFlow that uses X-ray and CT scan image data of a cracked infant skull to predict height and orientation of a fall that could have produced the crack. https://github.com/jakehirst/sfx_ML

- Using web-scraping and machine learning to find trends in NFL game data to predict the winners of upcoming games. https://github.com/jakehirst/Sports_ML