# WESLEY HOLT

## DATA SCIENTIST | MECHANICAL ENGINEER | PH.D. CANDIDATE

wesleyjholt@gmail.com | (859) 469-2024 | Lafayette, IN

## SKILLS

- Deep learning
- Probabilistic inference
- Physics modeling
- Design optimization
- Pharmaceutical science
- Data processing
- Software development

## EDUCATION

**Purdue University, Lafayette, IN**
*Ph.D. Mechanical Engineering*
*Expected Apr 2025*

**Brigham Young University, Provo, UT**
*B.S. Mechanical Engineering*
*Apr 2021*

## LEADERSHIP

**Vice President**
*BYU Wind Energy Club*

- Led a team of 20+ engineering students in the Collegiate Wind Competition

## WORK EXPERIENCE

### Research Assistant
*May 2020 – Present*

*Purdue Predictive Science Laboratory* | Lafayette, IN

- Researching physics-informed machine learning in pharmaceutical science
- Using Bayesian inference to predict behavior of biomaterials and biological flows

*BYU Flight, Optimization, and Wind Laboratory* | Provo, UT

- Developed a novel method for optimizing wind plants with complex site boundaries; 50% faster than existing methods
- Created open-source software that lab members still use for wind energy research

### Computational Engineering Intern
*June 2021 – Aug 2021*

*National Renewable Energy Laboratory* | Remote

- Characterized the uncertainty in a computational model for solar plants; allowed the industry partner to determine feasibility of a new maintenance procedure
- Developed software that automated uncertainty analysis as new data became available

### Mechanical Engineering Intern
*June 2020 – Aug 2020*

*Autoliv* | Ogden, UT

- Designed an experiment that modeled part of the airbag manufacturing process; the new procedure allowed samples to be prepared 10x faster than before, with higher reliability
- Discovered the source for a particular manufacturing flaw; presented to management, which led to further investigation by the quality engineering team

### Statistics Teaching Assistant
*Sep 2018 – Aug 2020*

*BYU Statistics Department* | Provo, UT

- Taught statistics concepts to 200+ students
- Provided one-on-one tutoring, often increasing individual test scores by 20%