Sarah Hunter

EDUCATION

Brigham Young University *Graduated 12/2024*
- BS Mechanical Engineering, Minor in Computer Science.
- Magna cum laude, 3.99 GPA

SKILLS

Programming (*Python, C++, Java, MATLAB, SQL, Git*)	CAD (*Solidworks*), FEA (*Ansys*)	Control Systems Design (*PID, State-Space, Loop Shaping*)	Deep Learning (*DNNs, CNNs*)	Fluent in Norwegian

WORK EXPERIENCE

Mechanical Engineering Design Intern *05/2024 - 08/2024*
Silver Lake Automation, *Savannah GA*
- Designed 13 unique structures, 4 original mechanisms, and numerous custom parts for a robotic welding cell.
- Communicated drawings to both in-house and external manufacturers, and sourced off-the-shelf components.

Research Assistant *01/2024 - 04/2024*
BYU Mechanical Engineering Department, *Robotics and Dynamics Lab*
- Performed system identification on a soft robot arm by optimizing model parameters relative to truth data.
- Assisted in training a learned dynamics model of the arm, with the goal of transfer learning to multi-link arms.

Teaching Assistant
BYU Mechanical Engineering Department, *Design of Mechatronic Systems* *09/2023 - 12/2023*
- Educated students in basic mechatronics skills (sensors, motors, C programming, state-machines, etc).
- Led weekly lab sections and assisted dozens of students in debugging their hardware and software.

Modeling, Simulation & Analysis Intern *05/2023 - 08/2023*
Raytheon, *Tucson AZ*
- Developed a graphical MATLAB tool to rapidly visualize missile performance from 6 DOF simulation data–reducing troubleshooting time by integrating the functionality of various standalone tools.
- Assisted the autopilot team in design and selection of gains for the control law of the missile.
- Awarded the Raytheon Accountability RStars award for completing my project early and for taking initiative.
- Obtained and held an active secret security clearance.

Data and Software Engineering Intern *09/2022 - 12/2022*
Kreatize GmbH, *Berlin, Germany*
- Evaluated the usability of a commercial software tool for improving manufacturing time/cost estimations.
- Developed a Python script to implement commercial software into company workflow using REST API.

EXTRA-CURRICULAR & VOLUNTEER EXPERIENCE

Two-time First Place Winner in BYU Mechatronics Club Competition *2019, 2021*
- Built two robots that: 1) autonomously navigated a maze, 2) sorted 40 colored ping pong balls in <60 sec

Volunteer representative for the Church of Jesus Christ of Latter-day Saints *07/2019 - 12/2020*
- Spent 80 hours/week teaching individuals, training new volunteers, and leading service projects in Norway.

Secretary for the Residence Halls Association at BYU *08/2018 - 04/2019*
- Organized 8 events serving 2,750 students. Was awarded Heritage Halls RHA Council Member of the Year.