

Robert Hoel

Orlando, Florida 32816 | (786) – 503 – 9323 | bobbyhoel@gmail.com | www.linkedin.com/in/robert-hoel

Portfolio: <https://www.robertdhoel.com>

EDUCATION & LEADERSHIP

- > University of Central Florida, Orlando FL, Mechanical Engineering B.S, Expected Graduation Date August / 2027
- > Society of Themed Entertainment Engineers and Leaders (STEEL) | Treasurer 2024 – present

WORK EXPERIENCE

Design Engineer Intern | JBT Marel

September 2025 – Present

- Design, Draft, and Create, multiple parts for various pieces of company equipment that are both actively out on site and in-house production
- Collaborate within my own department and several other departments: marketing, production, welding, assembly etc. to deliver quality products to customers
- Review drawings of parts / assemblies on a weekly basis to go over general errors and catalog them within a database to correct any major or minor issues that need to be addressed on the shop floor
- Initiate more effective ways to track and store data learning programs such as Microsoft power automates and Power BI, reducing human error and improving data collection leading to more effective ways to fix errors
- Lead initiatives to improve flow within Autodesk Inventor space that will make other employees' lives easier as our teams grow
- Develop knowledge of GD&T and ASME drafting practices, along with utilizing PDM software (Autodesk Vault)

Resident Assistant | UCF Housing and Residence Life

August 2024 – May 2025

- Mentored and supported by over fifty residents, offering personalized guidance, creating a positive living, and learning environment
- Planned community events that promoted engagement, well-being, and smooth transition to university life

Seasonal Educator / Exhibit Educator | Zoo Miami

June 2021 – August 2024

- Led firsthand educational activities and interactive wildlife presentations including on the spot notice
- Engaged with guests through conservation-focused education presentations and live exhibit demonstrations

PROJECTS

Drop Tower Brake System Analysis | Ideas Showcase 1st Place

Lead Electrical / Design Engineer

- First place winner for designing and analyzing drop tower brake systems
- Researched brake systems in drop towers using key principles from Statics and Dynamics classes
- Created detailed sketches and free-body diagrams to model structural forces and system behaviors
- Engineered a dual motor circuit to drive rapid motion of our cart, and to power a custom solenoid braking system

Themed Flat Ride Development | Ride Engineering Competition 6th Place

Theming / Artistic Lead

- *Designed, manufactured, and themed a functional flat ride*, adhering to competition guidelines and ASTM standards
- Piloted efforts to maximize our team's score within theming and outreach category through creative storytelling
- Collaboration between the Mechanical engineering team and Safety Analysis team to ensure seamless integration of ride functionality and immersive theming

Steel Drop Tower

Project Manager

- Advancing my team in designing a fully functional drop tower, featuring a bungee-based system for a unique ride experience
- *Modeled and simulated* the mechanical aspects of the drop tower design in SolidWorks
- *Developed brake system concepts* through research done in parks and documentations, prioritizing similar systems used for rider safety and system reliability

TECHNICAL SKILLS

- > 3D Modeling / Computer Aided Design
- Inventor / Autodesk programs
- SolidWorks
- OnShape
- > Coding (C, Java, Python, Microsoft Power Automate, MATLAB)
- > Microsoft Office (w/ PowerBI) / Google Workspace

CERTIFICATIONS

- CSWA (SolidWorks Associates) <-
- CSWP (SolidWorks Professionals) <-
- Fusion 360 / Inventor <-