

Charlie Wickham

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U.S. Citizen
CharlieWickham.Weebly.com

Profile

Experienced design engineer and creative problem solver with 3 years of diverse positions in the attractions industry and 7+ years of technical leadership and project management experience. Commended for exceptional skill, dedication and impact on projects and people.

Education

Iowa State University *Graduation: May 2022*

- Master's in Industrial Design - **4.00 GPA**
- BS Mechanical Engineering - 3.72 / 4.00 GPA Magna Cum Laude - **May 2020**
- Honors Societies: Tau Beta Pi and Order of the Engineer

École Polytechnique Fédérale de Lausanne *Switzerland*

Aug 2017 - Jul 2018

- Mechanical Design Technical Courses in French and English with Technical Reports

Technical Experience

Ride Engineering Competition Commissioner at *ISU TPEG*

Jun 2020 - Present

- Designed an annual hands-on Engineering Competition for 94 college students at 11 universities
- Adapted Systems Engineering, Risk Assessment and ASTM Standards Compliance for education
- Lead a committee of over 20 Students, Faculty, and global Industry Professional Stakeholders
- Coordinated scoring, Produced video interviews and Moderated Q&A panels for a public audience

Ride Maintenance Engineering Intern at *Morey's Piers and Water Parks*

Jun 2019 - Aug 2019

- Performed daily and special inspections and maintenance on Great Nor'Easter roller coaster
- Reassembled suspended Roller Coaster train and conducted ASTM F24 Accelerometer Testing
- Assisted with installation, assembly and State Commissioning of new steel roller coaster

Engineering Intern, Parts and Service at *Premier Rides, Inc*

Jan 2019 - Jun 2019

- Managed orders of aftermarket replacement parts from initial quote to final shipment and invoice
- Drafted engineering drawings in Solidworks and Autocad and aided in custom service solutions
- Worked closely with projects team on ride vehicle design for multiple projects

Engineering Intern at *Signode Industrial Group, Glenview, IL*

May 2017 - Aug 2017

- Designed and implemented Lean inventory procedure for 10,000 piece part manufacturing facility
- Authored a thorough long-term procedure that is still being used as of October 2018
- Negotiated quotes from suppliers for custom solutions while saving over 20% of projected costs

Personal Projects at *Iowa State University*

May 2017 - Aug 2020

- **Robotics:** BB-8 RC droid - WALL-E Droid Head Design - NASA Lunar Mining Robot
- **Mechatronics:** Model Linear Synchronous Motor - Wireless Charging Tron Disk - Hackathons
- **3D Printing:** Functional Roller Coaster Trains - Antarctic Solar Rover - Interactive Business Card

Skills / Software

Creative Problem Solving

CAD (Solidworks, Fusion 360)

Nolimits 2

Concept Development

Project Management

Adobe Creative Suite

Leadership and Public Speaking

MATLAB Simulation

Electric Motor Design

Programming (C, Arduino)

French C1

Dutch A1

Volunteering

ISU Innovation Gold Fellow

May 2020 - May 2021

Recognized for over 1700 hours of innovation training and practice in a single year

F24 Student Committee Member

ASTM F24

Feb 2019 - Present

IAAPA Show Ambassador

Orlando expo 2018-2019

Europe expo 2021

Student Facilitator

AIMS International

Feb 2020

Founder and President

ISU Theme Park

Engineering Group

Aug 2019 - Jun 2020

FIRST Robotics Mentor

#3928 Team Neutrino

Feb 2021 - Present

Personal Interests

Guitar and Vocal Music

3D Printing

Cycling / Disc Golf

Skiing / Camping

Theme Park Hopping

S.T.E.A.M. Education