

Yuxuan Li

Sustaining Engineering Intern at Walt Disney Parks and Resorts

Proficient in CAD design in SolidWorks and Finite Element Analysis in ANSYS. Hands-on experience in micro-controller programming, mechatronics, robotics control, and ride system control. Solid background in automobile design, manufacturing, robotics, rapid prototyping, and programming.

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WORK EXPERIENCE

Sustaining Engineering Intern

Walt Disney Parks and Resorts

07/2018 – Present

Lake Buena Vista, FL

Achievements/Tasks

- Programmed Allen Bradley PLC (Programmable Logic Controller) using RSLogix software and ladder logic. Modified ride cascade stop logic and increased attraction throughput by 12%.
- Used SolidWorks Motion Study to analyze and redesign an anti-rollback spring for Pirates. Enabled it to fully operate by adding a magnet to the system.
- Used ANSYS and Working Model 2D to compare deflections of Speedway vehicle bumpers.

Ride Mechanical Engineering Intern

Walt Disney Parks and Resorts

06/2017 – 09/2017

Lake Buena Vista, FL

Achievements/Tasks

- Modified the clamping configuration of the Pirates up ramp airbag in SolidWorks. Used weld fatigue calculation and increased operation cycle by 1000.
- Simulated and analyzed Space Mountain ride track in ANSYS and modified track design. Reduce the maximum stress by 8.7 and improved the stiffness by 2.3.
- Designed the secondary retention mechanism for Country Bear. Simulated the failure impact in Working Model 2D and used MathCAD calculation to support the design. Achieved factor of safety of 2.28.

EDUCATION

Bachelor of Science in Mechanical Engineering

University of California, Los Angeles

09/2014 – 06/2018

GPA: 3.70

Relevant Courses

- Feedback and Control Systems, Radio Frequency Identification in Manufacturing and Supply Chain, Nanofabrication, System Engineering, Rapid Prototyping and Manufacturing, Business Law, Corporate Finance

SKILLS

SolidWorks

ANSYS

MATLAB

AutoCAD

C++

MathCAD

Working Model 2D

Arduino IDE

SolidCAM

Java

RSLogix 5

ENGINEERING PROJECTS

Bruin Racing Baja SAE (09/2014 – 06/2017)

- Used SolidWorks to design suspension and powertrain system components, including a customized gearbox with a reduction ratio of 6.98:1 and top speed of 40 mph.
- Manufactured designed parts using machine shop, abrasive water-jet, and CNC milling.

The Stalker (01/2018 – 06/2018)

- Designed an autonomous shopping cart with color tracking, obstacle avoidance, and grocery lifting capabilities.
- Used ANSYS Static Structural analysis to analyze the chassis system that is able to hold 20 lbs of groceries.
- Designed the drive system circuit and programmed the micro-controller using Arduino IDE and implemented PD control logic.

IEEE Natcar (09/2015 – 01/2016)

- Created an autonomous line-following robotic vehicle using Arduino, half bridge motor driver, and line-scanning camera.
- Designed the 3-D printed mounting using Autodesk Inventor.

CERTIFICATES

E.I.T - California (164623) (06/2018)

AWARD AND HONORS

Tau Beta Pi Member

Dean's Honors List (Fall 2014, Winter 2015, Winter 2017, Winter 2018)

LANGUAGES

Chinese



Korean

