Colin Bell

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Education:

Business Certificate - Stanford University

April 2020-April 2021

Masters of Science in Mechanical Engineering - University of Washington

Sept 2016 - June 2018

• Control systems, Optimization, and Numerical Methods, Markov Models, Machine Learning, and Motion Planning

Bachelors of Science in Mechanical Engineering - University of Arizona

Aug 2011 – Dec 2015

• U of A Dean's List for GPA above 3.5 - Fall 2012, Spring 2013, Spring 2014, Fall 2014, Fall 2015

Work Experience:

Amazon – Prime Air Hardware Development Engineer

Jan 2019 - Present

- Develop mechanical flight hardware, mechanical and electrical test beds, investigate materials/manufacturing processes
- Develop machine learning models to automate flight log reviews and recognize failing motors

SpaceX - Satellite Structures Associate Engineer

Jan 2017 - Dec 2017

- Test and build engineer for satellite composite truss structure. Included designing, sourcing, managing parts and group. Required working with local shops and working with remote teams to streamline test and build process
- Started automating a thermal vacuum chamber to reduce test time, increase safety, and allow network control with PLC

Tesla – Service Engineering Intern

April 2016 - Sept 2016

- Designed diagnosis procedures to accurately and quickly fix coolant system and AC related issues in all Tesla models
- Model 3 service via CATIA to feedback potential design changes to design teams and train service technicians

Gaged Engineering - Engineering Consultant (Part Time)

Jan 2016 - April 2016

• CAD modeling and general part design for Continuously Variable Transmissions (CVTs)

Sargent Aerospace - Manufacturing Engineering Intern, Design/Project Engineer June 2015 - April 2016

- Hydraulic valve design, test, and manufacturing engineer for navy submarines
- Waste reduction and environmental compliance through national and local agencies

Lund Engineering - Mechanical Engineering Intern

Summer 2013/2014

- Design and assembly of automated production machinery for Boeing 777x and 787
- CAD design for crew evacuation system for a rocket tower to swing Crew Access Arm out during emergency evacuation

Projects:

Machine Learning and Controls (In Free Time)

Sept 2018 – Current

- Model predictive machine maintenance using a Neural Network on simulated Thermal Vacuum pressure curves
- Motion Planning for rocket center of gravity stabilizer on landing pad using A* method
- Motion planning and object avoidance for part assembly using Hamiltonian control

Foster School of Business - Machine Learning Research_

Feb 2018 – April 2018

• Using data science and predictive models to answer business-based questions via python packages

University of Arizona Baja Racing Team – Member and President

Nov 2012 - Dec 2015

- Managed team, cars, and members while designing and analyzing parts (frame, suspension, etc.) via CAD and FEA
- Machined via CNC mill, lathe, manual mill, and TIG/MIG

Additional Skills:

Engineering Software: AutoCad, Solidworks, MathCad 2.0, Matlab, ANSYS, Creo, CATIA V5, Siemens NX, FEMAP Programming Language Exposure (Self Taught): Python, Arduino (C based), VBA