David Oke

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EDUCATION

Carnegie Mellon University, Pittsburgh, PA
Master of Science in Mechanical Engineering, May 2021
Bachelor of Science in Mechanical Engineering, May 2020
Overall GPA: 3.57/4.0

RELEVANT EXPERIENCE

SpaceX, Associate Vehicle Engineer, Boca Chica, TX **Summer 2020**

- Worked on Starship, a reusable rocket designed to carry humans to orbit, the Moon, and Mars
- Lead Build Engineer for landing legs installation & deployment
- Helped build, fly, and land SN5 & SN6 vehicles
- Responsible for the build operations of several propulsion and avionics systems
- Coordinated closely with design engineers to optimize designs for manufacturing
- Utilized Siemens NX and Team Center to create build operations and determine design requirements

The Boeing Company, Engineering Intern, Everett, WA **Summer 2019**

- Worked within the Autopilot control laws team to improve several flight controls analysis tools
- Constructed a knowledge tool that documents Engine Build-Up process for 777 aircraft

Pratt & Whitney, Quality Engineering Intern, East Hartford, CT **Summer 2018**

- Managed and oversaw redesign of Quality Assurance department intranet site
- Wrote a python program to process and analyze excel data to generate monthly department metrics
- Learned HTML & CSS throughout my internship to make a new Quality intranet site

PROJECTS & LEADERSHIP

Carnegie Mellon Solar Racing, President & Propulsion Team Lead **2016 - 2020**

- Lead a team of 30 engineers in designing and building a 18ft solar-powered boat to race and compete nationally
- Managed an annual budget of $20,000 and placed 3rd out of 17 teams in 2017 Solar Splash Competition
- Lead a sub-team of 8 in building a sun-tracking system to increase charging efficiency of solar panels
- Redesigned gearbox and lower unit of outboard motor with SolidWorks CAD & simulation

Automated French Press, Electromechanical Systems Design **Fall 2019**

- Built a novel coffee-making machine that won Best Prototype at the Design Expo (team of 4)
- Developed electrical system and code architecture using Arduino microcontroller, relays, and sensors
- Built a linear actuator to automatically press the coffee using stepper motor and driver

Robot Gripper Arm, Design I **Fall 2018**

- Designed robotic arm that automatically gripped and secured an object under dynamic conditions (team of 5)
- Developed geometric relations using stress analysis to design for a given factor of safety
- Conducted iterative Finite Element (FEA) studies in SolidWorks to predict failure modes and locations

SKILLS

Software: MATLAB, Arduino, ANSYS, Siemens NX, SolidWorks, Team Center, Fusion 360, MasterCam, Microsoft Office
Programming Languages: Python, C, C++, HTML, CSS
Machining: CNC, Lathe, Mill, Laser cutting, 3-D Printing, Drill Press, Band Saw

RELEVANT COURSES

Electromechanical Systems Design, Fluid Dynamics, Machine Learning, CAD, Feedback Controls Systems, Dynamics, Heat Transfer, Principles of Imperative Programming, Robot Dynamics, Material Selection, Stress Analysis, Fluid Mechanics

ACTIVITIES & HONORS

College of Engineering Dean's List (GPA 3.75 and above), Spring 2018, Spring 2019, Spring 2020
Ford College Network 'Blue Oval Vehicle Team Leadership' Scholarship, 2018