# COLE DOMENICO

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#### **EDUCATION**

Oregon State University BS: Mechanical Engineering September 2020

Major GPA: 3.65

#### Specialized Coursework

- Applied Heat Transfer
- Gas Dynamics

- Thermodynamic Design
- Vibrations

#### WORK EXPERIENCE

# Johnson Crushers International — MECOP Internship Plant Design Engineering

April – September 2019 Eugene, Oregon

- Research and development on new multifrequency screen technology.
- Designed a Below the Hook certified lifting device.
- Designed a gear oil cooler for a screen wheelcase.
- Developed engineering automation tools in Inventor VBA.
- Supported current projects in the plant engineering department.

# Daimler — MECOP Internship

April – September 2018 Portland, Oregon

## Product Validation — Fuel Economy

at distribution for fuel

- Designed, built and tested a system to autonomously adjust trailer weight distribution for fuel economy testing.
- Fabricated and tested diesel flow meters.
- Provided other departments with Python support.

Math Tutor 2016-2018

- Taught students mathematics from basic algebra to calculus.
- Coached people of all ages including adults and middle school kids.

#### **PROJECTS**

## Senior Design Project

July 2019 — Present

OSU AIAA Experimental Sounding Rocketry Association (ESRA) Team osuaiaa.com/esra ESRA is a collaborative, interdisciplinary team who aims to design and build a solid-fuel rocket that will reach 30,000 feet. As the propulsion team lead, I have the following responsibilities:

- Lead a team of three other members to develop and design a reliable propulsion system.
- Characterize a new propellant formulation in sub-scale testing.
- Design, build, and test a data acquisition system on a critical timeline for sub-scale and full-scale static fire testing.
- Redesign motor assembly to minimize convection between pressure vessel and thermal liner.
- Reliably manufacture propellant grains for static fire testing and flight.

#### **Personal Projects**

**Desktop CNC mill:** Designed and am currently manufacturing a 3 axis CNC mill using stepper motors, a VFD controlled spindle, linear bearings, and machined parts.

Nixie Clock: Designed and built a clock using nixie tubes.

Automatic Watch: Built an automatic mechanical watch.

#### **Proficient**

- Python
- C++
- Solidworks
- Inventor
- Eagle
- Matlab
- Engineering Equation Solver
- LATEX

## Experienced

- VBA
- Linux Bash Terminal
- HTML
- Machining
- Siemens NX
- Femap
- LTspice
- Simulink

## REFERENCES

## Dr. Kyle Niemeyer

Professor for senior design project Assistant Professor of Mechanical Engineering at Oregon State University

**\** 541-737-5614

## Jorge Loza

**MECOP Mentor** Mechanical Design Engineer at KPI-JCI

and Astec Mobile Screens

**\** 541-232-5677

# Gary Heeszel

Supervisor

Engineering Manager at KPI-JCI and Astec Mobile Screens

**\** 541-517-6349