

Gregory Grabeel

MECHANICAL ENGINEER · DETECTION PHYSICS

Richland, Washington

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Experience

PNNL

Richland, Washington

MECHANICAL ENGINEER

2020 - Present

- Work to design, make, and commission ultra-low background equipment for fundamental physics and national security projects
- Design of systems with high vacuum, cryogenic temperatures, and ultra-low radioactive background considerations
- Develop systems for atmospheric sampling and archival storage

Amentum

Hanford, Washington

PLANT ENGINEER 2

2018 - 2020

- Support of plant operations during the commissioning of the nuclear waste vitrification plant, Vit Plant, as a shift engineer
- Created proposal and presentation for the Department of Energy on using robot controlled laser ablation as a means of container decontamination

ANR/LIGO

Richland, Washington

CONTRACTOR

2017 - 2018

- Assembly and installation of light baffles inside of vacuum envelope
- Diagnosed and repaired closed loop chiller system for infrared laser thermal compensation system

Caltech/LIGO

Richland, Washington

TECHNICIAN

2010 - 2016

- Assembly, installation, and testing of in-vacuum seismic isolation equipment, thermal compensation systems, and hydraulic external pre-actuation isolation system
- Design, assembly, coding, and writing of instruction manual for ultra-high vacuum leak test chamber
- Testing and design of Class A, low humidity long-term equipment storage system

SiC Processing

Portland, Oregon

SUPERVISOR / LAB TECH

2007 - 2008

- Performed qualitative analysis of product and provided corrective actions
- Supervised crew and commissioned plant during graveyard shift

Skills

Mechanical Systems Ultra-high vacuum systems, leak detection, residual gas analyzers, pump and chiller maintenance
Drafting and FEA SolidWorks, COMSOL, ANSYS, P&IDs
Programming Python, Matlab, Arduino

Education

Washington State University

Richland, Washington

B.S. IN MECHANICAL ENGINEERING

2015 - 2019

- Senior Design project on ASME aeronautics
- Electives in aeronautics and internal combustion engines

ASME

Portland, Oregon

MATERIALS & DESIGN FOR HIGH TEMPERATURES

2019

- Analysis and design of high temperature systems
- Material selection and failure modes of high temperature systems

ASME

Sante Fe, New Mexico

SECTION VIII, DIVISION 1: DESIGN & FABRICATION OF PRESSURE VESSELS

2020

- Pressure vessel inspection, repair, and design
- Ensuring pressure vessels adhere to Section VIII standards