

Nathan Reetz

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Education

Rutgers University-New Brunswick
B.S. in Mechanical Engineering
Cumulative GPA: 3.2/4.0

May 2020

Technical Strengths

CAD / FEA	SolidWorks, SolidWorks Flow, AutoCAD, ANSYS, AFT Arrow
Data Analysis	MATLAB, Excel, Design of Experiments, Tolerance Stack-up Analysis
Design Concepts	DFM, NPD, Additive Manufacturing (SLM), GD&T, Prototyping (FDM)

Experience

Mechanical Engineer II – Veeco Instruments
Somerset, NJ

September 2020 – Present
(Promoted February 2022)

- Designed sub-assemblies of an MOCVD compound semiconductor system for Ultra High Vacuum and High Temperature operating conditions in a production environment
- Contributed to the New Product Development (NPD) engineering team on semiconductor manufacturing equipment
- Led R&D projects for next-gen PiezoCon sensors from the design to prototyping and testing phase
- Developed CFD models that allowed for fast, precise, and optimized solutions for customer-specific applications
- Experience with semiconductor manufacturing equipment in a cleanroom environment

R&D Engineer Intern – Veeco Instruments
Somerset, NJ

May 2019 – September 2020

- Assisted in the design, assembly, and testing of MOCVD compound semiconductor equipment
- Responsible for R&D testing, data collection, and troubleshooting of mechanical systems
- Generated technical drawings and conducted tolerance stack-up analysis for components and assemblies
- Developed and implemented empirical testing methods and data analytics crucial to solving a high-priority customer project

Personal Projects

Quadcopters

- Designed and optimized the frame structure of a quadcopter using Finite Element Analysis (FEA)
- Leveraged 3D printing to fabricate parts with ABS to ensure strength and flexibility

Additive Manufacturing & CNC

- Manufactured prototype parts from ABS, PLA, and ASA plastics using an FDM 3D printer
- Built, programmed, and operated a small-scale CNC machine to create carbon fiber parts

Certifications & Awards

Certified SolidWorks Associate – Mechanical Design (CSWA)

July 2021

ASME GD&T Fundamentals

May 2023

ASME GD&T Applications and Tolerance Stacks

May 2023

Veeco Accolade – Awarded for work with empirical testing and data analysis

April 2020