Contact Information:
joekochevar@gmail.com
831.236.1335

Joseph Kochevar

Mailing Address:
2300 Jefferson Ave NE
APT C114
Renton, WA 98056

http://joekochevar.com

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SUMMARY OF QUALIFICATIONS

Mid-career mechanical engineer with a strong background in mechanical design, large assembly management, configuration control, drafting, and structural analysis. Possesses multidisciplinary industry-level engineering experience and a demonstrated ability to perform in a multitude of roles with high levels of success. Heavily biased towards action, and ready to contribute in any way possible.

EDUCATION

OLIN COLLEGE

BS in Mechanical Engineering
May 2016 | Needham, MA
Recipient of 4-year,
50% Olin Merit Scholarship
Conc. in Entrepreneurship
Cum. GPA: 3.75 / 4.0

SKILLS

DESIGN

PTC Creo • Windchill
Solidworks • Solidworks PDM
AutoDesk Inventor • AutoCAD
Configuration Control
Large Assembly Management

ANALYSIS

ANSYS • AFT Impulse
COMSOL • NASA CEA

DRAFTING

GD&T • Tolerance Stack Analysis
ASME Y14.5 • Drafting Review

SOFTWARE

MATLAB • Arduino • Java
C • C++ • HTML • Python

FABRICATION

Mill • Lathe • CNC • Laser Cutter
Waterjet • 3d Printing
Pneumatic Tools • Tube Bending
MIG Welding • Brazing
Precision Assembly

EXPERIENCE

BLUE ORIGIN | Propulsion Engineer II

June 2016 - Present | Kent, WA

Advanced Development Programs: Space Vehicle

- Primary engineer responsible for Space Vehicle propulsion systems
- Conducted high-level trade studies and performance analysis
- Developed propulsion baseline architecture to meet vehicle mission requirements
- Brought the system from high-level exploration to Advanced Conceptual Review.

BE-4 Engine Systems Design

- Engineer responsible for BE-4 Engine Systems Design team
- Configured multiple unique development engine builds to accommodate various stages of development and qualification testing
- Primary configuration data manager for BE-4 engine assembly
- Analyzed and released hundreds of drawings for development, qualification, and flight
- Worked with external and internal customers to accommodate vehicle needs and manage system interfaces.

New Graduate Rotation Program

- Designed laser optics and purge tooling for custom manufacturing systems.
- Designed and released monopropellant RCS thruster qualification test program.
- Constructed the primary hydraulics simulation for the New Glenn rocket, and used the results to inform routing and accumulator sizing and placement.

SENIOR CAPSTONE: BOEING | Mechanical Engineer

Sept 2015 - May 2016 | Needham, MA

- Optimized737 final manufacturing to improve cargo bay panel installation.
- Also acting as business manager, organizing budgeting and purchases.

PROTEDYNE CORPORATION | Mechanical Engineering Intern

June 2014 – Aug 2014 | Windsor, CT

- Assisted in design and modification of large-scale laboratory automation systems.
- Created and corrected drawings and engineering data using SolidWorks.
- Dispatched ECRs and wrote ECNs to disposition hardware in process and in the field.

ATK AEROSPACE SYSTEMS | Engineering Intern

June 2012 – Aug 2012 | Monterey, CA

- Worked with a team of engineers on UAV sensing payload modules and advanced signal processing.

LEADERSHIP AND ACTIVITIES

OLIN BAJA SAE | Team Captain: Design Lead

Aug 2012 – June 2016 | Needham, MA

- Directed component- and system-level designs for four off-road racing vehicles.
- Conducted and and audited finite element analysis to ensure vehicle designs met FS standards.
- Designed and built platform to simulate, test, and tune Continuously Variable Transmissions.
- Created and modified simulations to predict and explain CVT performance.
- Made Olin Baja one of the first and only SAE Baja teams to have a full CVT simulation, testing, and diagnostic tool suite.