

# Kyle Richardson

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## SUMMARY

Mechanical engineer focused on hands-on problem-solving and rapid prototyping, with a strong passion for drone technology and 3D Printing. My portfolio showcases a range of projects I have worked on over the years and is linked above for more details.

## EDUCATION

### **University of Massachusetts Lowell**

*Bachelor of Science in Mechanical Engineering; Magna Cum Laude: GPA 3.5*

September 2020- May 2024

## WORK EXPERIENCE

### **SharkNinja | Needham Ma**

*Ninja Heated R&D Mechanical Engineering Co-Op*

June 2024 – December 2024

- Gained hands-on experience in electrical systems, control systems, and sheet metal fabrication while developing test rigs
- Guided testing and analysis for product systems, designing and executing test plans to resolve performance issues
- Analyzed technical data, providing actionable insights to upper management for product development decisions
- Developed mass production consumer products, conducting tests to ensure efficient scalability for large-scale manufacturing
- Collaborated with teams in the US, UK, and China to ensure alignment on testing procedures, deadlines, and project goals
- Worked with AC circuits and rewired PCBAs for custom test setups, integrating control flows to optimize product functionality
- Led the design, testing, and analysis of a convection system, improving performance by 170% through iterative development
- Created a calibration procedure to optimize power distribution, developing a universal test plan for teams in the UK and China

### **Dassault Systèmes | Waltham Ma**

*SOLIDWORKS Product Management Intern*

June – August 2023

- Developed and presented a comprehensive software product proposal to the executive team
- Designed, modeled, and constructed a 3D-printable FPV drone from the ground up using xDesign
- Utilized the drone model as a valuable dataset for upcoming product demos, marketing initiatives, and software testing
- Enhanced software quality by identifying, documenting, and reporting numerous bugs, driving platform improvements
- Navigated the multifaceted challenges of the drone project, from inception to flight within a tight 2-month timeframe
- Authored an in-depth blog post detailing the drone project's journey and the 3DEXPERIENCE platform's capabilities: <https://blogs.solidworks.com/solidworksblog/2023/11/from-crash-and-burn-to-soaring-creating-a-drone-with-3d-creator.html>

### **Dassault Systèmes | Waltham Ma**

*SOLIDWORKS Product Management Intern*

June – August 2022

- Constructed a detailed technical product proposal for executive team
- Created numerous comprehensive mechanical designs for marketing and demo purposes
- Developed high quality CAD models to evaluate the performance of cloud apps within the 3DEXPERIENCE Platform
- Conducted data compatibility tests across various applications on the 3DEXPERIENCE Platform
- Coordinated with R&D Team to identify product issues and possible enhancements
- Generated images and videos depicting new product functionalities

## PROJECTS (Full project details available on my website portfolio: <https://kyle-richardson.com/> )

- ASME EFX Drone Competition: Designed, built, and raced a custom FPV drone to secure second place in a national competition
- SOLIDWORKS Drone Project: Engineered an FPV drone from initial concept to flight during a summer internship
- Oven Power Distribution: Created a procedure to optimize heater distribution and streamline testing for teams in the UK and China
- Oven Convection System: Optimized a convection system, increasing airflow efficiency by 170% through innovative testing
- Restaurant Server Robot Model: Developed an intricate CAD model of a restaurant server robot, contributing to a product proposal
- Custom PC Build: Built a custom PC from scratch, tailored for gaming, CAD, and video editing, showcasing technical skills

## CERTIFICATIONS

- SOLIDWORKS Professional in Mechanical Design (CSWP)
- SOLIDWORKS Associate in Mechanical Design (CSWA)
- SOLIDWORKS Associate in Additive Manufacturing
- 3DEXPERIENCE 3D Creator
- 3DEXPERIENCE Collaborative Business Innovator
- 3DEXPERIENCE Collaborative Industry Innovator

## SKILLS

- FDM 3D Printing
- Rapid Prototyping
- Product Development
- Parametric Design
- Manufacturing Drawings
- Betaflight Configurator
- Soldering
- Engineering Analysis and Optimization
- Bill of Materials Management
- Product Data/Lifecycle Management
- FPV Drone Construction

## ACTIVITIES & INTERESTS

Intramural Sports (basketball, softball, volleyball), hiking, skiing, fishing, skateboarding, building and flying FPV drones, video production