

# Daniel J. Mason

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## PROFESSIONAL EXPERIENCE

### Senior Mechanical Engineer

Rev Group Inc. | Orlando, FL | Apr 2023 – Mar 2025 |

- Lead, responsible for the continued design and development of the Wheeled Coach ambulance brand.
- Designed new ambulance brand, Redimedic, from concept to build in collaboration with senior engineering staff.
- Revamped review process to create clear documentation of design requirements, allowing for higher quality reviews and an efficient onboarding experience for junior engineers to better understand specific design criteria.
- Trained/mentored several junior engineers through technical guidance, peer review, and hands-on training.
- Automated AutoCAD dxf generation utilizing Lisp and VBA to automatically export shelf packages to production.
- Released multiple engineering change notices (ECN's) to both improve quality and reduce costs.
- Revised various ISO controlled documentation to improve clarity of information.
- Worked with customers and dealers to generate solutions to highly customizable design criteria.

### Mechanical Engineer II

Rev Group Inc. | Orlando, FL | Mar 2018 - Apr 2023 |

- Interpreted contracts and specifications to determine feasibility and advise on customer requests.
- Provided solutions to critical production issues through hands-on analysis of ambulances on the factory floor.
- Reviewed final assembly release packages to ensure design quality prior to production start.
- Designed over 350 unique ambulance exteriors across six independent brands for body fabrication utilizing CREO.
- Created over 2200 assembly drawings utilizing CREO and AutoCAD to generate production packages.
- Designed custom Java applications to improve team productivity and design quality.
  - REV Engineering Search Tool created to easily find truck files, drawings, dxf's, and contracts in one place.
  - Transmittal Review software to automate the comparison of release packages to CREO models.

### Design Engineer

NASA Senior Design Capstone | Orlando FL | August 2017 -December 2017 |

- Worked with senior design team to create a pneumatic system for collection and redistribution of NASA BP-1 regolith simulant to assist with their lunar robotic mining competitions (NRMCM).
- Utilized solidworks to create subassemblies for import to ANSYS to test flow behavior of the system.
- Responsible for fabrication of system prototype to prove design concepts.

## PROJECTS

### Sessionless Authentication Protocol Development

Java Developer | March 2024 - September 2024 | **Github:** <https://github.com/planet-nine-app/sessionless> |

- Published Sessionless protocol to Maven Central Repository with the goal of making sessionless library an accessible client-server encryption tool for open source development for future systems written in Java.
- Developed base Spring implementation for the server side deployment of sessionless.

### Elite Dangerous Pilots Network (EDPN) Backend Development

Java Backend Developer | April 2023 - Current | **Github:** <https://github.com/ed-pilots-network> |

- Collaborate with a team of senior backend engineers to develop REST backend for the Elite Dangerous Pilots Network web application using: Spring, Kafka, Liquibase, Gradle, Git, Mybatis, PostgreSQL and Docker.
- Responsible for significant contribution to Spring stack and PostgreSQL schema design.

### Baja Society of Automotive Engineering (SAE)

Design Engineer & Machinist | Orlando FL | August 2015 -December 2017

- Machinist responsible for fabrication of bracketry and gearbox components on both manual mill and lathe.
- Redesigned brake rotors to reduce wheel weight; improving maneuverability and performance of the vehicle.

## EDUCATION

### Bachelor of Science Mechanical Engineering—University of Central Florida

Orlando FL | December 2017

## SKILLS

Solidworks	ProNest	Microsoft Office Suite	Java	Linux
CREO	FEA	3D Printing	Python	Git/Github
AutoCad	Manual Mill	Lisp	SQL	Containerization/Docker
Sheet Metal	Manual Lathe	VBA	Rust	Servers/Virtualization