Adib Mazloom

Engineer

(858) 603-7380 | adibmazloom@gmail.com | San Diego, CA | https://www.linkedin.com/in/adib-mazloom-6556437b/

US Citizen eligible for Government Security Clearance

Professional Summary

Results-driven mechanical and aerospace engineer with expertise in system integration, test development, and thermal analysis. Skilled in CAD modeling, thermal analysis, and control systems, with a strong foundation in financial management and leadership. Proven track record in delivering innovative solutions, optimizing performance, and enhancing reliability. Eligible for government security clearance.

Areas of Expertise

Technical Skills: SolidWorks | ANSYS | MATLAB | Python | SAP | AutoCAD | FEA |

Engineering Skills: GD&T | Thermal & Vibration Analysis | Design for Assembly | Structural Calculations |

Professional Skills: Problem Solving | Rapid Prototyping | Cross-Functional Collaboration | Data Collection & Analysis |

Professional Experience

Founder & Lead Mechanical Engineer, Trach Tech Pro | San Diego, CA May 2022 - Present

- Designed advanced data acquisition systems with Arduino and PCB solutions, enhancing sensor accuracy by 20% and reducing system failure rates by 30%.
- Led projects from prototyping to production, ensuring compliance with engineering standards and reducing manufacturing defects by 25%.
- Developed CAD models and conducted FEA simulations to optimize product performance, resulting in a 15% weight reduction while maintaining structural integrity.

Thermal Design & Test Engineering Intern, Wavious LLC | San Diego, CA June 2021 - February 2022

- Developed thermal modeling for military chiplets, improving thermal performance by over 35°C.
- Designed and implemented test protocols for extreme condition validation, increasing test efficiency by 40%.
- Analyzed heat dissipation methods, leading to a 20% reduction in system cooling requirements.

Valet Driver & Bell Boy, AAA Parking | Del Mar, CA March 2023 - Present

- Delivered exceptional customer service at a luxury hotel, handling an average of 50+ vehicles per shift with zero customer complaints.

Education

Bachelor of Science, Aerospace Engineering | University of California, San Diego 2019 - 2023

Masters of Business Administration | California State Polytechnic University, Pomona 2024 - 2025

Mastered Coursework: Thermodynamics | Fluid Mechanics | Heat Transfer | Nuclear Engineering | Spacecraft Mechanics | Orbital Mechanics, Propulsion Engineering (Air & Space) | Aerospace Structures | AerodynamicsAccounting & Managerial Finance | Operations Management | Organizational Behavior | Product Lifecycle Management

Academic Projects

NASA Mars Glider & NASA Venus Airship:

- Developed UAV systems for planetary exploration, improving CAD modeling accuracy by 25% for soft goods integration.
- Enhanced structural integrity through advanced simulations, reducing weight by 10% while maintaining performance.

Electric Automobile Conversion:

- Designed and fabricated a complete electric powertrain conversion, increasing vehicle efficiency by 18%.
- Integrated advanced CAD models and performed detailed FEA analysis, optimizing structural design and reducing component failure rates by 22%.