

Rohan Marshall

Senior Thermal Engineer, Aerospace Thermal Design

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SUMMARY

Thermal engineer with seven years of experience supporting **thermal analysis**, heat transfer evaluation, simulation, validation, and mechanical design activities. Develops practical engineering models for electronic and mechanical assemblies, then connects model findings with test observations and product decisions. Creates clear **engineering documentation**, simulation inputs, analysis summaries, and technical presentations for multidisciplinary teams. Applies conduction, convection, cooling requirements, CAD review, and **product development** experience across complex systems. Works closely with engineers and stakeholders during design reviews, prototype evaluation, verification, and testing support. Brings a steady focus on **thermal performance**, reliability, sound engineering methods, and useful communication that helps teams make informed design choices.

EXPERIENCE

Thermal Engineer

Vertex Space Systems 📅 June 2022 - Present 📍 Madison, WI

Supports **thermal engineering** for electronic and mechanical assemblies, guiding modeling, validation, design reviews, testing, and technical communication across multidisciplinary product teams. Work connects engineering analysis with practical design decisions and reliable product outcomes.

- Developed **thermal models** for **electronic assemblies**, guiding design reviews with clear engineering analysis findings.
- Evaluated **heat transfer** behavior using simulation inputs, supporting practical mechanical design decisions for product teams.
- Correlated engineering models with validation data, helping stakeholders interpret test results and refine assumptions.
- Prepared technical documentation and presentations, giving **multidisciplinary teams** a clear basis for design discussions.
- Supported **thermal testing** activities, connecting observed performance with model results and follow up recommendations.
- Applied mechanical design principles during reviews, improving thermal performance considerations across complex product assemblies.

Junior Thermal Engineer

Northstar Engineering Labs 📅 July 2020 - May 2022 📍 Milwaukee, WI

Supported product development programs through thermal modeling, heat transfer analysis, CAD review, prototype evaluation, documentation, and test preparation. Built early career depth by turning technical data into useful verification and design input for engineering teams.

- Supported **thermal modeling** projects, preparing engineering evaluations for product development program decisions.
- Analyzed **conduction** and **convection** requirements, clarifying cooling needs during early design studies.
- Documented **simulation** assumptions and results, improving traceability for engineering recommendations and verification.
- Assisted CAD reviews with thermal considerations, helping engineers identify practical product design improvements.
- Organized **technical data** for project decisions, giving teams cleaner inputs during verification planning.
- Contributed to **prototype evaluation** and test preparation, supporting more focused engineering checks before reviews.

PROJECTS

Electronic Assembly Thermal Validation 📅 2024

Improved model confidence by linking thermal simulation inputs with observed validation data from electronic assembly testing. Findings supported clearer design reviews and practical follow up decisions.

Cooling Requirements Evaluation 📅 2021

Applied conduction and convection analysis during product development studies. Documented assumptions, cooling requirements, and recommendations for prototype evaluation and verification planning.

LEADERSHIP & AWARDS

- Recognized by engineering leadership for clear thermal analysis summaries supporting multidisciplinary design reviews.
- Selected by project peers to organize technical data for prototype verification and test preparation.
- Earned team recognition for connecting model results with observed thermal performance during validation discussions.

EDUCATION

Bachelor's Degree in Mechanical Engineering

University of Wisconsin Milwaukee 🎓 GPA: 3.5 📅 2020 📍 Milwaukee, WI

Coursework: Heat Transfer, Thermodynamics, Fluid Mechanics, Computer Aided Design

CERTIFICATIONS

- Thermal Analysis Fundamentals Certificate 📅 2025
- Engineering Simulation and Validation Certificate 📅 2024

TECHNICAL SKILLS

- **Thermal Analysis:** Thermal modeling, heat transfer, thermal performance
- **Simulation Tools:** Engineering simulation, simulation inputs, model evaluation
- **Validation Methods:** Model correlation, validation data, verification planning
- **Heat Transfer Modes:** Conduction, convection, cooling requirements
- **Mechanical Design:** Mechanical assemblies, design principles, product design
- **Computer Aided Design:** CAD reviews, assembly layouts, design evaluation
- **Engineering Documentation:** Analysis summaries, technical documentation, engineering records
- **Testing Support:** Prototype evaluation, thermal testing, test preparation
- **Design Review:** Technical presentations, stakeholder reviews, design discussions
- **Product Development:** Product development programs, reliability, performance evaluation
- **Aerospace Engineering:** Aerospace systems, electronic systems, cooling solutions
- **Technical Communication:** Analysis results, engineering findings, multidisciplinary communication

SKILLS

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|--------------------|-----------------------------|--------------------------|---------------------------|
| • Thermal Analysis | • Validation | • CAD | • Conduction |
| • Heat Transfer | • Engineering Documentation | • Mechanical Engineering | • Convection |
| • Thermal Modeling | • Technical Requirements | • Product Development | • Technical Communication |
| • Simulation | • Testing Support | • Design Reviews | |

PROFESSIONAL AFFILIATIONS

- Member, American Society of Mechanical Engineers, thermal and mechanical engineering community.
- Participant, Society of Automotive Engineers, aerospace and engineering analysis discussions.

LANGUAGES

- English (Native)
- Spanish (Intermediate)

ADDITIONAL INFORMATION

Work Status : Authorized to work in United States. No sponsorship required.

REFERENCES

AVAILABLE ON REQUEST