

Matt Reeves

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PROFESSIONAL PROFILE

Seeking a senior mechanical engineering position focusing on thermal design and simulation. Enjoy interfacing with customers in an engineering/sales role. Also interested in consumer product design for sports equipment.

Design Patent D0553656 "Cold Plate Heat Sink" Feb 2007

Design Patent D553170 "Cold Plate Heat Sink" Feb 2007

SolidWorks Certified Professional 2005

Northeastern capstone design project: 2nd place design of Corner Adapting Motorcycle Headlight (multi-axis headlight controlled by inertial and gyroscopic sensors) 2002

PROFESSIONAL EXPERIENCE

Amulaire Thermal Technologies , San Diego CA

Mechanical Engineer

October 2005 – Present

Achievements:

- Helped bring the newly formed startup company up to speed with engineering tools, software, policies and procedures.
- Headed the integration of engineering tools, software policies and procedures, with Amulaire's Taiwan factory and engineering department.
- Developed a scalable NPI flow path that worked for both Taiwan and US engineering departments.
- Designed best performing and selling CPU coldplate on the market.
- Designed many top performing hi-power (wind, solar and hybrid electric drive) coldplates using Amulaire metal injection molding capabilities.
- Helped the company change focus early on from air to liquid cooling technologies greatly improving our position in the high power and CPU market.

Responsibilities:

- Thermal, flow and stress analysis for various coldplate, vapor chamber and heatsink projects using FloWorks, Flowtherm, Icepack, and Cosmos.
- Mechanical design and documentation.
- Traveling with sales and Interfacing with customers in both the US and Asia.
- Project management and delegation between US and Taiwan engineering teams.

Sun Microsystems, San Diego CA

Mechanical Engineer

February 2005 – October 2005

Description:

Design of electronics packaging and cooling solutions for large servers and network equipment.
Design of experiments involving airflow, temperature and pressure measurements, heatsink characterization and fan testing.

Thermal Consulting, Oceanside CA

Consultant

2005 – Present

Description:

Mechanical and thermal design work for some past companies and friends.
Redesign of sunlight collector to keep it from melting under full load.
Simulation and design of a thermal solution to cool a CPV module for next gen solar power.
Design of temperature regulated packaging for air and ground shipping of pharmaceuticals.

Copley Controls, Canton Ma

Mechanical Engineer

November 2002 – February 2005

Description:

Electronics packaging and thermal management, Designed and modified metal and plastic parts for liquid/air cooled rack mount MRI Amplifiers and motion control products using SolidWorks and AutoCAD. Created part drawings, assembly drawings and bill of materials using both SolidWorks and AutoCAD. Performed fluid flow and heat transfer analysis on cold plate designs using Algor FEA software. Redesign of rack to prevent bending when dropped using both Cosmos and Algor Stress analysis. Design of cost reduced prototype liquid cooling solution for next generation high power amplifiers. Design of heat pipe assisted air cooled amplifier.

American Power Conversion, Billerica Ma

Mechanical Engineer (co-op)

Junior and senior year 9 months

Description:

Design of sheet metal rack-mount battery backup chassis and various parts using SolidWorks, Cost reduction engineering of existing products, Emphasis put on design for manufacturing, thermal issues, and high volume production. Also drafted interior layout of labs and offices of newly acquired building using AutoCAD.

Sun Microsystems, Billerica Ma

Mechanical Engineer (co-op)

Junior year 3 months

Description:

Computer chassis and rack design. Airflow and temperature testing using hot wire anemometers, wind tunnel, and thermister probes. Thermal interface testing, using ASTM standards. Built foam core models for acquiring system resistances and preformed design changes using ProE. Wrote test and calibration procedure for using hotwire anemometer equipment. Built model of 1U rack mount server and performed airflow and thermal testing using new blower design.

EDUCATION

Northeastern University, Boston MA
Bachelor of Science in Mechanical Engineering
June 2002

REFERENCES

References are available upon request.