

Timothy York

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SUMMARY

With over 7 years of extensive experience in Computational Fluid Dynamics, specialized skills in heat transfer and thermodynamics drive expert analyses within mission-critical facilities. Proven success improving operational reliability through sophisticated airflow simulations, contaminant dispersion resolutions, and thermal comfort measures. Prioritize clarity in team communication and technical presentations while collaborating effectively with cross-functional teams. A strong commitment to research ensures methodologies adapt to modern challenges, positively impacting project efficiency. Enthusiasm for mentoring peers fosters knowledge sharing and continuous improvement across engineering practices.

EXPERIENCE

Lead CFD Analyst

June 2021 - Present

Innovative Engineering Solutions

New York, NY

Responsible for developing methodologies that improve fluid dynamics analysis and building systems' operational stability. High-level communication with multidisciplinary teams fosters collaborative efforts to ensure client satisfaction and project alignment.

- Utilized advanced CFD tools to resolve physics-based challenges associated with building airflow, thermal comfort, and contaminant dispersion, enhancing operational reliability.
- Developed and implemented best practices for CFD analysis, significantly improving workflow efficiency and reducing project turnaround times.
- Conducted thorough research on computational fluids to stay abreast of advancements and integrate them into existing methodologies.
- Compiled comprehensive technical reports and delivered presentations to stakeholders, ensuring clarity and effective communication of engineering solutions.
- Collaborated with multidisciplinary teams, enhancing project outcomes by aligning engineering efforts with client objectives.
- Mentored junior engineers, fostering a culture of continuous learning and professional growth within the team.

Senior Mechanical Engineer

May 2018 - May 2021

Engineering Dynamics Corp

Philadelphia, PA

Led projects focusing on energy-efficient thermal management systems, overseeing complex engineering designs tailored for high-performance buildings.

- Led projects focused on thermal management systems for high-performance buildings, ensuring adherence to industry standards and client specifications.
- Conducted simulations and analyses to optimize building mechanical systems, contributing to energy efficiency and sustainability goals.
- Coordinated with architects and contractors to integrate mechanical solutions into building designs, resulting in successful project completions.
- Analyzed performance data to identify areas for improvement, implementing changes that enhanced system reliability and efficiency.
- Presented findings and recommendations to executive leadership, driving strategic decisions on mechanical system designs.
- Developed training materials and workshops for engineering teams on CFD software and best practices.

Mechanical Engineer

July 2015 - April 2018

Thermal Solutions Technologies

Chicago, IL

Focused on innovative cooling system designs and detailed thermal analysis methodologies for various applications.

- Designed and evaluated cooling systems for various applications, ensuring optimal performance and compliance with regulatory standards.
- Assisted in the development of innovative thermal analysis methods, contributing to research and development projects.
- Participated in cross-functional teams to deliver solutions that addressed complex engineering challenges in building systems.
- Maintained rigorous documentation of engineering processes and results, facilitating knowledge transfer and project continuity.
- Engaged in client consultations to understand their needs and provide tailored engineering solutions.
- Enhanced software tools used for thermal simulations, improving accuracy and user experience.

LEADERSHIP & AWARDS

- Awarded Engineer of the Year by Innovative Engineering Solutions for outstanding technical contributions in 2023.
- Recognized for leading a project that reduced energy consumption by 15% across multiple facilities in 2022.

EDUCATION

Bachelor's Degree in Mechanical Engineering

Coursework: Thermodynamics, Fluid Mechanics, Heat Transfer, Advanced Mechanics

CERTIFICATIONS

- Certified Energy Manager (CEM) 📅 2022
- Professional Engineer (PE) 📅 2021

TECHNICAL SKILLS

- **CFD Tools:** ANSYS Fluent, COMSOL Multiphysics, Autodesk CFD
- **Modeling Software:** SolidWorks, AutoCAD, Revit
- **Analysis Tools:** MATLAB, Simulink, Python
- **Documentation Platform:** Microsoft Office, LaTeX, Google Workspace
- **Energy Simulation Software:** Trace 700, EnergyPlus, OpenStudio
- **Data Analysis Tools:** Excel, MATLAB, R
- **Programming Languages:** Python, Java, C++
- **Project Management Tools:** Trello, Asana, Microsoft Project
- **Communication Tools:** Slack, Microsoft Teams, Zoom
- **Quality Standards:** ASHRAE, ISO 9001, LEED

SKILLS

- Computational Fluid Dynamics
- Heat Transfer
- Project Management
- Team Leadership
- Thermodynamics
- Building Mechanical Systems
- Technical Presentations

PROFESSIONAL AFFILIATIONS

- Member of American Society of Mechanical Engineers, actively participating in leadership committees.
- Volunteer mentor with STEM outreach programs, promoting engineering within local schools.

LANGUAGES

- English (Native)
- Spanish (Intermediate)

ADDITIONAL INFORMATION

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

REFERENCES

AVAILABLE ON REQUEST