



Exponent®
Engineering & Scientific Consulting

Spencer Matthews

Associate | Vehicle Engineering

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Professional Profile

Mr. Spencer Matthews is an associate in the vehicle practice and specializes in extended durability testing and critical component design for heavy trucks including “over the road” durability testing, computer aided design (CAD), complex numerical simulations (CAE and CFD), individual component testing and diesel engine system testing. He also has tangential experience with nuclear technology in relation to complex manufacturing for power station command building and turbine hall structural components.

Mr. Matthews has extensive experience with machining and machine tools in both a design and manufacturing setting including geometric dimensioning and tolerancing and design for CNC machining operations.

Mr. Matthews has experience with passenger cars and light trucks, motorhomes and RVs, electric vehicle development, and military communications related projects, as well as the field of fluid flow dynamics, aerospace engineering and marine architecture. He has prepared and conducted full aerodynamic design and testing loops associated with low and medium speed aerodynamic vehicles.

Due to the capabilities of the Exponent Inc. Phoenix facility, Mr. Matthews can design and support testing strategies for extended durability for full vehicle systems and over the road aerodynamic/aero-thermal testing for ground vehicles to validate aerodynamic and thermal concepts for your vehicle development lifecycle.

Academic Credentials & Professional Honors

M.S., Mechanical Engineering, University of Akron, 2022

B.S., Mechanical Engineering, Portland State University, 2018

Member of Golden Key International Honors Society, University of Akron, 2020

College of Engineering Dean's Performance Commendation, University of Akron, 2020

Prior Experience

Graduate Teaching Assistant, University of Akron, 2019-2021

Product Validation Engineer, Detroit Diesel Corporation, 2019

Project Specialist, Vigor LLC, 2018

Chassis Engineering Intern, Daimler Trucks North America, 2017

Machine Shop Technician, Portland State University, 2016-2018

Professional Affiliations

Society of Automotive Engineers (SAE)

American Institute of Aeronautics and Astronautics (AIAA)

American Society of Mechanical Engineers (ASME)

Languages

German