

MATT LIPSCOMB

248.996.0829
mlipscomb@explico.com

TRAFFIC ACCIDENT RECONSTRUCTION

EDUCATION

MICHIGAN STATE UNIVERSITY
BS Mechanical Engineering 2023

AFFILIATIONS

SAE International
National Association of Professional
Accident Reconstruction Specialists
(NAPARS)

PROFESSIONAL PROFILE

Mr. Matthew Lipscomb is a Senior Scientist at Explico. Mr. Lipscomb applies accident reconstruction analysis to real-world accidents. He conducts inspections using state-of-the-art technologies to gather data and evidence. He performs detailed review and synthesis of case related material. He performs mechanical calculations and simulations, as well as advanced mechanical testing and experimentation. Mr. Lipscomb also uses communication and presentation skills to communicate the results of the analysis.

Mr. Lipscomb earned his Bachelor's of Science in Mechanical Engineering with a concentration in Manufacturing from Michigan State University. During his senior capstone project, Mr. Lipscomb and his group designed and manufactured a four-person rail bike from concept to prototype. This vehicle allows the railroad-touring company to efficiently utilize discounted, easily attainable chassis material and employ careful design considerations to bolster vehicle structure and incorporate accessibility features. This provided the company with its own low-cost design that targets the prevalent needs of the customers and can eliminate vehicle renting costs. The prototype pleased both industry and academic advisors.

During his undergraduate studies, Mr. Lipscomb was involved in many other academic projects as well as volunteer work, where he became involved in Kesem, an organization that supports children through and beyond a parent or guardian's cancer. He and his group designed and manufactured an autonomous device to simulate additive manufacturing using a powder and binding agent via the fused deposition modeling (FDM) approach. He researched the drag force shielding effect of two in-line cylinders in an airflow chamber using pitot tubes. He created a Python computer code to play thousands of games of "spider" solitaire and display each turn, incorporating appropriately, and track game statistics. He analyzed the static support structures necessary to safely support the roof of one of Michigan State University's dormitories based upon Michigan's climate, building height, and other factors using advanced civil engineering practices.

AREAS OF EXPERTISE

Accident Reconstruction
Computer Aided Design
Laser Scanning
Finite Element Analysis
Evidence Documentation

EXPERIENCE

Explico

2026 - Present	<i>Senior Scientist</i>
2025	<i>Scientist</i>
2023 - 2024	<i>Associate Scientist</i>
2022	<i>Mechanical Engineering Intern</i>

PEER-REVIEWED PUBLICATIONS

Neal, J., Lipscomb, M., and Funk, C., "A Method for Calculating Frontal A and B Stiffness Coefficients from NCAP Barrier Crash Tests Accounting for Bumper Cover Air Gap," SAE Technical Paper 2024-01-2473, 2024, <https://doi.org/10.4271/2024-01-2473>.

SOFTWARE

Solidworks
Siemens NX
Python
Scene
CloudCompare
Workbench ANSYS

PROFESSIONAL DEVELOPMENT

SAE International

Advanced Applications of Heavy Vehicle EDR Data Learning Assessment, June 2025, Appleton, WI

Accessing and Interpreting Heavy Vehicle Evident Data Recorders Learning Assessment, June 2025, Appleton, WI

Applying Automotive EDR Data to Traffic Crash Reconstruction, May 2024, Washington, DC

Vehicle Crash Reconstruction: Principles and Technology, October 2023, Englewood, CO

National Association of Professional Accident Reconstruction Specialist (NAPARS)

Crash Analysis with EDR Data 2 Hour Training Class, September 2024, Online

Institute of Police Technology and Management (IPTM)

Crash Analysis with EDR Data 2 Hour Training Class, September 2024, Online

Recon - 3D

Online Training Course, September 2023, Online

Federal Aviation Administration (FAA)

Unmanned Aircraft General - Small (UAG), September 2023, Online