

# MATT LIPSCOMB

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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

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

## EXPERIENCE

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### 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

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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

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Solidworks  
Siemens NX  
Python  
Scene  
CloudCompare  
Workbench ANSYS

## PROFESSIONAL DEVELOPMENT

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### **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*