

## Curriculum Vitae

**Mitchell A. Chermak, BSME**

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### BACKGROUND

Mr. Chermak is a Mechanical Engineer specializing in accident reconstruction and forensic engineering research and analysis. He has worked on over 200 accident reconstruction cases over the last four years, which have included automobiles, trucks, tractor-trailers, motorcycles, pedestrians, bicycles and various machinery and products. He has provided technical analysis on patent infringement cases, research and analysis regarding ANSI and ASTM standards, and 3D simulation and animation of vehicular accidents. Detailed inspections of vehicles and scenes included the acquisition and analysis of Airbag Control Module (ACM) data, Tractor Trailer Electronic Control Modules (ECM) data, 3D laser scans, and unmanned aerial vehicle imagery. He also provides analysis on topics such as roadside safety, maintenance of traffic, and mechanical systems and product failures.

### AREAS OF EXPERTISE

- Automobile Collisions
- Tractor / Trailer Collisions
- Bicycle Accidents
- Motorcycle Accidents
- Pedestrian Accidents
- Roadside Safety
- Construction Zones
- Black Box Analysis
- Tractor Trailer Electronic Control Modules (ECM)
- Product Failure Analysis
- Maintenance of Traffic (MOT) Evaluation
- Restraint System Analysis
- Patent Litigation Technical Analysis

### PROFESSIONAL LICENSES & CERTIFICATIONS

- State of California, EIT #155014
- FAA Remote Pilot Certification, #4336481
- Certified Counter Balanced Forklift Operator

### EDUCATION

- B.S., Mechanical Engineering, Minors: Mathematics and Physics, San Jose State University, San Jose, CA, 2017

### PROFESSIONAL EXPERIENCE

2019 – Present | Quality Forensic Engineering, LLC | Mechanical Engineer, Tallahassee, FL

2016 – Present | Angle Systems, LLC | Application Engineer (Part-Time Remote Position), San Jose, CA

2018 – 2019 | BEC Consulting, LLC | Mechanical Engineer, Tallahassee, FL

2016 – 2017 | San Jose State University | Supplemental Instructor for ME101, Dynamics, Tutor for Engineering, Mathematics and Physics, San Jose, CA

## NOTABLE PROJECTS

### Forensic Engineering

Mr. Chermak has managed many forensic engineering projects, including the following specific subjects and issues:

- Vehicular accident reconstruction
- Tractor-trailer accident reconstruction
- Bicycle accident reconstruction
- Motorcycle accident reconstruction
- Pedestrian accident reconstruction
- Roadside safety device application and evaluation
- Construction zone accidents
- Vehicle electronic data acquisition and analysis
- Accident video analysis
- Product design and product failure analysis and testing
- Maintenance of traffic (MOT) related accidents
- Restraint system and evidence analysis
- Vehicle dynamics
- Mechanical design and failure evaluation
- Traffic signal sequence evaluation
- Unmanned aerial vehicle imaging and analysis
- 3D scan data collection and analysis
- Patent infringement and validity

### Metrology

While serving as an Application Engineer for Angle Systems, Mitchell works on continued software development for various offline measurement and inline defect inspection systems. These systems utilize machine vision and laser triangulation sensors to provide accurate and repeatable measurements through a highly automated procedure. The inline defect inspection systems also utilize machine learning for rapid and reliable classification for real-time defect detection. These systems have seen wide adoption in wire, cable, and medical tubing extrusion lines by many well known manufacturers both in the United States and abroad.

## PROFESSIONAL ASSOCIATIONS

- American Society of Mechanical Engineers (ASME)
- National Association of Professional Accident Reconstruction Specialists (NAPARS)

## COURSEWORK/CONTINUING EDUCATION

May 2022 | “Accident Reconstruction 101” by Dr. Brian G. Pfeifer, Quality Forensic Engineering, LLC, Tallahassee, FL

May 2022 | “Slips, Trips & Falls: Awareness and Avoidance” by Traci K. Campbell, Quality Forensic Engineering, LLC, Tallahassee, FL

May 2022 | “Fieldwork Safety Procedures” by Christian A. Yates, Quality Forensic Engineering, LLC, Tallahassee, FL

May 2022 | “Cyber Security Training” by Brian Rode, Premiere Computer Solutions, Tallahassee, FL

December 2021 | “Download and Analysis Techniques for Hyundai and Kia Vehicles” and “Engine Control Modules” by Christian A. Yates, Quality Forensic Engineering, LLC, Tallahassee, FL

October 2021 | Recertification Training and Testing for FAA Part 107 Remote Aircraft Pilot Licensing

July & October 2021 | “Photogrammetry Techniques and Procedures” by Patrick D. Weber, Quality Forensic Engineering, LLC, Tallahassee, FL

July 2021 | “Fieldwork Safety Procedures” by Christian A. Yates, Quality Forensic Engineering, LLC, Tallahassee, FL

June 2021 | “Cyber Security Training” by Brian Rode, Premiere Computer Solutions, Tallahassee, FL

June 2021 | “Using Video Evidence in Simulations”, PC-Crash, Online Webinar

April 2021 | “Operator Safety Training – Sit-down Counter Balance Forklifts”, Ring Power Lift Trucks, Tallahassee, FL

February 2021 | “PC-Crash Simulation Software Self-Paced Video Tutorial Training”, PC-Crash, Online Webinar

August 2020 | “Traffic Crash Reconstruction I” Northwestern University Center for Public Safety Evanston, IL

July 2020 | “Tractor-Trailer Inspection 101” by Christian A. Yates, Quality Forensic Engineering, LLC, Tallahassee, FL

July 2020 | “Berla iVe Overview” by Christian A. Yates, Quality Forensic Engineering, LLC, Tallahassee, FL

February 2020 | “Fundamentals of CDR Downloads” by Christian A. Yates, Quality Forensic Engineering, LLC, Tallahassee, FL

February 2020 | “ACM Repowering Rig and the CDR900” by Christian A. Yates, Quality Forensic Engineering, LLC, Tallahassee, FL

February 2020 | "Fieldwork Safety Procedures" by Christian A. Yates, Quality Forensic Engineering, LLC, Tallahassee, FL

September 2019 | Training Course for Preparation to the FAA Part 107 Exam for Certification as a Remote Aircraft Pilot

Spring 2017 | "Numerical Analysis and Scientific Computing", San Jose State University, San Jose, CA

Spring 2017 | "Mathematical Modeling", San Jose State University, San Jose, CA

Fall 2016 - Spring 2017 | "Advanced Mechanics I & II", San Jose State University, San Jose, CA

Spring 2016 | "Applied Probability and Statistics", San Jose State University, San Jose, CA

*May 24, 2022*