

# Gary Daniel Osterholt

## ADDRESS

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Heritage Oaks Business Center, Suite 204  
Tallahassee, FL 32309  
(850) 228-3335 (work)  
(888) 249-9226 (fax)      <http://www.cummingsci.com>

## ACCREDITATIONS AND LICENCES

- **Accredited Traffic Accident Reconstructionist**, Accreditation Commission for Traffic Accident Reconstruction (ACTAR), #2067.

## EDUCATION

**Master's of Science: Mechanical Engineering** – Florida State University – 2003-2005

- Graduated December 2005 – GPA 3.3
- Depth Area – Solid Mechanics & Materials focusing on Super Plasticity Forming.

**Bachelor's of Science: Mechanical Engineering** – Florida State University – 1999-2003

- Graduated May 2003 – GPA 3.24
- Technical Electives focusing on Solid Mechanics & Materials

## PROFESSIONAL AFFILIATIONS

**Member:**

**NAPARS** – National Association of Professional Accident Reconstruction Specialists

**NATARI** – National Association of Traffic Accident Reconstructionist and Investigators

**SAE** – Society of Automotive Engineers.

## EXPERIENCE

*Cummings Scientific, LLC*

Tallahassee, FL      Accident Reconstruction      2008-Present

- Reconstruction of Vehicular Accidents, Dynamics & Kinematics, Skid Coefficients, Lamp Filament Analysis, Computer Analysis, Momentum Exchange, Vehicle Crush Energy Calculations, Visibility Analysis, Occupant Restraint Analysis, Occupant Kinematics & Dynamics.
- Mathematical Modeling of Vehicular Accidents and Occupants Kinematics.
- Computer Modeling of Vehicular Accident and Occupant Kinematics.
- Computer Animations
- Downloading and Interpretation of vehicle CDR data.
- Vehicle Crash Testing

### *Quest Engineering & Failure Analysis*

Tallahassee, FL                      Accident Reconstruction                      2005-2008

- Reconstruction of Vehicular Accidents, Dynamics & Kinematics, Skid Coefficients, Lamp Filament Analysis, Computer Analysis, Momentum Exchange, Vehicle Crush Energy Calculations, Visibility Analysis, Occupant Restraint Analysis, Occupant Kinematics & Dynamics.
- Mathematical Modeling of Vehicular Accidents and Occupants Kinematics.
- Computer Modeling of Vehicular Accident and Occupant Kinematics.
- Computer Animations
- Vehicle Crash Testing
- Vehicular Accident Re-Enactments

### *Florida State University*

Tallahassee, FL                      Teaching Assistant for Intro to ME                      2002-2005

- Provided help to the students during a recitation every week.
- Help in the creation of test and homework questions.
- Perform all the grading of homework and test.

### *Florida State University*

Tallahassee, FL                      Research Assistant for AMML                      2002-2005

- Performed material testing for Super Plasticity Forming.
- Redesigned the laboratory Super Plasticity Forming press.

### *Florida State University*

Tallahassee, FL                      Senior Design (Rancho Suspensions)                      2002-2003

- Focused on the computer modeling.
- Performed FEM Analysis on the current production model.
- Performed Adams Model computerized vehicle suspension testing.

### **PUBLICATIONS**

- Osterholt, G.D., Cummings, J.R., Calhoun, D.V., Biller, B.A., Updating Generic Crush Stiffness Coefficients for Accident Reconstruction. SAE, 2010. 2010-01-1581
- Cummings, J.R., Osterholt, G.D., Calhoun, D.V., Biller, B.A., Occupant Friction Coefficients on Various Combinations of Seat and Clothing. SAE, 2009. 2009-01-1672

### **CONFERENCE AND COURSE ATTENDANCE**

- MADYMO Advance Training Course, Livonia, MI 01/12
- MADYMO Introductory Training Course, Livonia, MI 06/09
- Crash Data Retrieval Analyst Course, Ashburn, VA 01/09
- Crash Data Retrieval Technician Course, Ashburn, VA 01/09
- CAT Commercial Motor Vehicle Electronic Data Retrieval, Tallahassee, FL 09/07

- Heavy Vehicle Crash Reconstruction, Northwestern University 05/06
- SAE Commercial Vehicle Braking Systems, Detroit, MI 04/06
- SAE Vehicle Accident Reconstruction Methods, Detroit, MI 04/06
- EDC Reconstruction Course, Northridge, CA 01/06
- EDC Simulations Course, Miami, FL 11/05
- PC-Crash Advanced Training Workshop, Vancouver, BC 08/05
- PC-Crash Training Workshop, Vancouver, BC 08/05

## **SKILLS**

- **Accident Reconstruction** - Reconstruction of automobile, heavy truck, bus, heavy equipment, tractor trailers, trains, motorcycles, ATVs, bicycles, and pedestrian accidents. This includes the analysis of accident events and physical evidence to determine causation, critical accident events, sequence of events, compliance with procedures, and injury mechanisms. Typical projects include vehicular, construction, and slip/trip & fall accidents.
- **Product Failure Analysis** – Analysis of specific projects with regard to materials failure, fatigue, corrosion, safety and design.
- **Computer Based Accident Reconstruction and Simulations** – using HVE, EDCrash, EDSMAC, PC Crash, MADYMO and physics based simulation programs.
- **Crash Testing** - Data acquisition, crush analysis and reduction.
- **Investigative Services** - Scene investigation, surveys, and drawings, skid analysis, photography, vehicle inspection, damage analysis, vehicle dynamics.
- **Photogrammetry** of digital and scanned photos using a variety of CAD programs and Photomodeler to analyze skid patterns, crush depths, and accident scenes.
- **Finite Element Analysis** – using state of the art mechanical modeling programs.
- **Human Factor Analysis** – human perception and reaction times, visibility analysis.
- **Seat Belt Analysis** – Engineering analysis of material evidence to determine if seat belts were operational, if occupants were wearing their seat belts.

## **HONORS AND ACHIEVEMENTS**

- **Engineer Intern** – State of Florida Board of Professional Engineers
- **Outstanding Teaching Assistant Award**, Florida State University Department of Mechanical Engineering.