



MOMENTUM
engineering corp.

CURRICULUM VITAE
PHILIP S. WANG, MSME

SPECIALIZATION

- Accident Reconstruction
- Computer Simulation and Animation
- Traffic Signal Analysis
- Rollover Analysis
- Close-Range Photogrammetry
- Visibility Studies
- Re-enactments
- Crash Data Recorder

EDUCATION

- Master of Science in Mechanical Engineering (MSME)
University of California at Santa Barbara (1994)
- Bachelor of Science in Mechanical Engineering (BSME)
University of California at Santa Barbara (1992)
Senior Project: Design and Manufacture of Automobile Safety Devices

CERTIFICATIONS

- CDR– Data Analyst
- PhotoModeler Collision Investigation
- Optics, Lighting, Visibility and Digital Photography for the Forensic Investigator

ADDITIONAL TRAINING

- SATAI Conference and Crash Tests, October, 2016
- SATAI Conference and Crash Tests, September, 2015
- Vision, Perception, and Attention, May, 2015
- Pedestrian Accident Reconstruction Methods, May, 2015
- Red Light, Green Light Intersection Collisions, May, 2014
- Optics, Lighting, Visibility and Digital Photography for the Forensic Investigator
March, 2014
- SATAI Conference and Crash Tests, September, 2013
- Validation: Staged Collisions for PC-Crash Workshop, June 2013
- Essential Skills for PC-Crash Workshop, March 2013
- SATAI Conference and Crash Tests, September, 2012
- SATAI Conference and Crash Tests, September, 2011
- PhotoModeler Collision Reconstruction Course, March 2011
- SATAI Summer Conference and Crash Tests, July, 2010
- Expert Skills for PC-Crash Workshop, November 2009
- ARC-CSI Crash Conference, June 2009
- CDR Technician Certification Course, April 2009

PROFESSIONAL EXPERIENCE

- 2008 to present **MOMENTUM ENGINEERING CORP.**
Senior Forensic Engineer
Accident reconstruction, including heavy trucks, automobiles, motorcycles, bicycles and pedestrian accidents. Computer simulation, photogrammetry and graphics production. Engineering services including vehicle and site inspections, re-enactments, visibility studies, traffic signal analysis, vehicle dynamics, rollover dynamics and crash testing.
- 1999 to 2007 **COLLISION RESEARCH & ANALYSIS, INC.**
Research and Consulting Engineer
Conducted engineering analysis and reconstruction of 500+ motor vehicle accidents. Testified as an expert in accident reconstruction in both depositions and arbitrations, in both criminal and civil courts, on behalf of both plaintiff and defense clients. Conducted field investigations including site, exemplar and subject vehicle inspections. Performed vehicle component testing, vehicle test data acquisition and analysis. Conducted comprehensive vehicle surveys detailing all aspects of fuel systems, restraint systems and exhaust systems. Analyzed and created videos to support engineering studies and accident reconstructions. Developed engineering presentations for both in house and potential client audiences.
- 1998 to 1999 **MAJESTIC TRANSPORTATION PRODUCT**
Consultant
Performed complete evaluation of prototype safety restraint system for school buses. Created test matrix for simulations of various safety restraint systems in numerous crash modes, incorporating several variables. Managed client relations, including authoring proposals, coordinating contracts and evaluating marketing packages. Oversaw other engineers and managed deadlines and schedules.
- 1996 to 1998 **CMR FORENSIC CONSULTANTS**
Forensic Engineer
Performed accident reconstruction of motor vehicle collisions to examine impact severity and liability issues. Reconstructed occupant kinematics for determination of injury potential and causation. Conducted field investigations including site, exemplar and subject vehicle inspections. Prepared and analyzed experiments for litigation, including performance studies of automobile components. Drafted reports summarizing technical data, experimental results and expert opinions for litigation and interoffice use.

1995 to 1996

LIABILITY RESEARCH GROUP

Staff Engineer

Conducted accident reconstruction experiments for litigation, including studies of occupant restraint systems in rollover environments, seatback failure and roof structure analysis. Authored company-sponsored publications relating to occupant restraint system effectiveness. Reconstructed vehicular kinematics in support of product liability investigations using the EDVAP automobile accident reconstruction software package. Built and maintained vehicle rollover test fixture.

PUBLICATIONS & PRESENTATIONS

State Farm Trial Academy, Accident Reconstruction and Evolving Technology, October, 2016

Landerville JB, Fatzinger, EC, Wang PS. "Disputed Red Light accidents: A primer on signal control" (Advocate Article). Published by Consumer Attorneys Association of Los Angeles, November, 2009.

Herbst, B., Forrest, S., Wang, P., Chang, D, Friedman, D., and Friedman, K. "The Ability of 3 Point Safety Belts to Restrain Occupants in Rollover Crashes." Paper No. 96-S5-0-12, Fifteenth International Technical Conference on the Enhanced Safety of Vehicles (ESV), May 1996.

Friedman, K. Friedman, D. Forrest, S. Meyer, S. Herbst, B. Chng, D. Wang, P., "Restraint Effectiveness During Rollover Motion", International Conference on the Biomechanics of Impact (IRCOBI) Proceedings, p303-309, September 1996, Dublin, Ireland.

PROFESSIONAL AFFILIATIONS

- Society of Automotive Engineers
- American Society of Mechanical Engineers
- National Association of Professional Accident Reconstruction Specialists
- Accreditation Commission for Traffic Accident Reconstruction
- Southwest Association of Technical Accident Investigators
- California Association of Accident Reconstruction Specialists