

Job Title: Accident Reconstructionist

**Position Summary:** Using a scientific approach, the Accident Reconstructionist is responsible for quantifying accidents and determining how they occurred in all types of events, with a majority of the reconstructions being low speed general negligence work. The Reconstructionist can resolve issues such as speeds, collision severity, visibility, driver behavior and other causal factors. An accident reconstruction is the culmination of the scientific analysis of the data gathering process formulated into a concise and coherent report which is backed by the expert's education, qualifications, and experience.

# **Essential Duties and Responsibilities include the following:**

- 1. Perform accident site investigations and inspect vehicles involved in accidents.
- 2. Document accident scenes using forensic documentation procedures.
- 3. Inspect and analyze automotive parts or mechanical parts to determine the cause of failure.
- 4. Determine the cause of accidents through analysis of evidence gathered from field surveys, specialized photography, vehicle damage profiling, scale replication, occupant motion (kinematics) analysis, video reenactment, field testing and re-enactment of events, analysis of vehicle safety systems for proper functioning, and possible mechanical failure preceding a collision.
- 5. Reconstruct vehicular accidents using engineering methodologies and reviewing materials (photographs, witness statements, depositions, police reports, medical and chiropractic records, etc.) to provide forensic conclusions.
- 6. Perform computer analysis and calculations. Provide timely and accurate technical findings in both verbal and written form.
- 7. Analysis of human injury resulting from vehicular accidents (automotive, motorcycle, trucking, etc.) and provide collision scene analysis.
- 8. Write reports detailing the supporting documentation of the cause of an accident or collision.
- 9. Provide expert witness testimony during court trials or court depositions.
- 10. Requires travel up to 30%.

**Qualifications:** To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skills, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

- Determine the dynamics of a vehicle collision or personal injury
- Prepare, review, and evaluate comprehensive reports related
- Communicate effectively orally and in writing
- Establish effective working relationships with management, employees, employee representatives and the public representing diverse cultures and backgrounds

#### **Desirable Traits**

Leadership, provides mentorship and imparts expertise to select staff. Communicates effectively, holds self and others accountable, problem-solving and innovation, demonstrates ethical behavior, leverages resources (coaches and develops), drives to excel, maximizes team effectiveness, supportive of change.

Three years' experience as a qualified expert witness in a courtroom setting and completion of specialized accident reconstruction training is desirable.

#### **Education/Experience/Competencies:**

- 1. Bachelor's degree in Mechanical Engineering, Biomechanical/Biomedical Engineering or a related engineering field is required.
- 2. Some experience in low speed general negligence environment preferred.
- 3. Three years recent experience in accident reconstruction
- 4. Advanced degree in Mechanical or Biomechanical/Biomedical Engineering is preferred but not required.

### **Reasoning Ability:**

- Ability to process, interpret, analyze and apply data in support of expert opinions.
- Ability to understand and to relate complex concepts involved with testing.
- Must possess excellent problem solving skills.

### **Computer Skills:**

- Required: Proficient knowledge of Microsoft Office Excel, Word, PowerPoint and Outlook. Familiarity with Matlab®.
- Preferred: Familiarization with accident reconstruction and animation software: EDCRASH, EDSMAC, HVE, ARAS360. CAD.

## **Required Certifications and Licenses:**

- ACTAR License current or within first 6 months
- Professional Engineering (P.E.) License preferred
- Valid driver's license with insurable driving history

Supervisory Responsibilities: None

**Work Environment:** The work environment characteristics described here are representative of those an employee encounters while performing essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

The work accommodations for this position include an office, in which the noise level is typically moderate, and our crash testing bay and fabrication shop, in which noise levels can be higher, commensurate with the use of power tools, saws, grinders and pneumatic tools.

### **Physical Demands:**

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is regularly required to sit and use hands and fingers. The employee is frequently required to talk or hear. The employee is occasionally required to stand, walk, reach with hands and arms and stoop, kneel, crouch or crawl. The employee must occasionally lift and/or move up to 25 pounds. Specific vision abilities required by this job include close vision and the ability to distinguish colors.

Depending on the type of testing being performed, the employee may also be exposed to periods of heat, cold, gasses such as automotive exhaust and cleaning chemicals. May be exposed to biohazards during inspection of accident vehicles. The above job description is not intended to be an all-inclusive list of duties and standards of the position. Incumbent will follow any other instructions and perform any other related duties as assigned by their supervisor.

Compensation: Competitive pay and benefits

Application Process: Send CV to <a href="mailto:jsanchez@brconline.com">jsanchez@brconline.com</a>

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