CLARITY SCIENTIFIC

Curriculum Vitae
William MacNeill, PE
Registered Mechanical Engineer
559-891-0274
wmacneill@csicv.com

FORENSIC SPECIALIZATION

Automobile Accident Reconstruction
Automotive Safety Systems
Automotive Inspections
Machine Guarding/Industrial Safety
Material Integrity/Failure Analysis
3D Simulation
Code Compliance
Slip/Trip and Fall

EDUCATION

MS Mechanical Engineering, June 2015
Oregon State University
Cumulative GPA: 3.60

BS Mechanical Engineering, May 2011
California State University, Fresno
Cumulative GPA: 3.91

EXPERIENCE

CSI CENTRAL VALLEY – September 2011 – Present

Engineering Consultant – Conducting vehicular accident reconstruction, mechanical and structural failure analysis, along with product liability and slip/trip and fall investigations. Involved in many aspects of Forensic Engineering and reconstruction including the collection and analysis of field data, analysis and production of final written reports.

Clarity Engineering Group – September 2011 – Present

Mechanical Engineer – Lead Engineer for new product development, including Design for Manufacture and Assembly (DFMA), Electromechanical design, solid modeling, stress analysis and rapid prototyping. Extensive expertise in additive manufacturing.

CLOVIS COMMUNITY COLLEGE – Fall Semester 2019

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Adjunct Engineering Instructor – Courses: Engineering Materials

OREGON STATE UNIVERSITY – July 2015 – January 2016

Faculty Research Assistant – Conducted research on the effects of varying process parameters during photonic sintering, focusing on optimizing sintering processes for use of polymer substrates and analyzing the effect of sintering process heat generation on substrate integrity and material properties.

OREGON STATE UNIVERSITY – July 2014 – June 2015

Graduate Research Assistant – Designed and prototyped a novel, automated metal additive manufacturing process. Research focused on photonic sintering of metal and semiconducting nanoparticles with applications in additive manufacturing. Research was published in Nature Scientific Reports.

OREGON STATE UNIVERSITY – September 2013 – June 2014

Graduate Teaching Assistant – Courses: Fluid Mechanics, Thermodynamics

BAKER HUGHES, INC – Vernal, UT – July 2011 – September 2011

Associate Engineer – Provided on-site engineering services to major oil companies.

CALIFORNIA STATE UNIVERSITY, FRESNO – 2011

Instructional Student Assistant – Assisted in teaching a machine design lab with an emphasis on solid modeling, Dynamic analysis and mechanical failure analysis. Course also covered stress and failure theory.

MICO CONSTRUCTION – 2005 – 2010

Managerial Assistant – Drafted site plans and reviewed building plans for submission to local building departments. Procured permits for a variety of construction projects and ensured they were built in compliance with local building codes.

CERTIFICATIONS

Registered Mechanical Engineer, License M38176

Certified Safety Auditor

CDR Data Analyst

CDR Tech Level II

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Clovis, CA 93612

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Qualified in Fresno County Superior Court

PUBLICATIONS

MacNeill, W. *et al.* On the self-damping nature of densification in photonic sintering of nanoparticles. *Sci. Rep.* **5**, 14845; doi: 10.1038/srep14845 (2015). https://www.nature.com/articles/srep14845

PRESENTATIONS

MacNeill, W. (2017, March). Photonic Sintering: Understanding this Low Temperature Alternative. Presented at AeroDef Manufacturing, Fort Worth, TX

MacNeill, W. and Billington, P. (2019, April). How to Use an Accident Reconstruction Expert for your Criminal Case. Presented at the offices of the Fresno County Public Defender, Fresno, CA

MEMBERSHIPS

ASTM – Committee Membership: E58 (Forensic Engineering), F42 (Additive Manufacturing Technology), D37 (Cannabis)

COURSES/SEMINARS

Crash Data Retrieval Data Analyst, "CDR Data Analyst Certification Course", May 2017, Poway, CA.

Crash Data Retrieval Technician II, "CDR Technician I & II Certification Course", May 2012, Hesperia, CA.

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