



James “Eddie” Lovejoy

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Education:

University of Illinois, Urbana-Champaign, IL; Bachelor of Science in Mechanical Engineering

Work Experience:

Mechanical Engineer; June 2015 to Present

Oracle Forensics Inc, Phoenix, AZ

- ❖ Engineering expert on fire personal injury cases.
- ❖ Versed in product failure analysis of appliances listed but not limited to: microwaves, refrigerators, ranges, coffee makers, washers, and dryers.
- ❖ Expert in loss site documentation, preservation, arc-mapping, evidence collection, reconstruction, 3D modeling, CAD interface software.
- ❖ Forensic lab technician, trained in radiography, microscopy, advanced optic photography, fluoroscopy.

Manufacturing/Mechanical Engineer, January 2011 to April 2014

Deublin Company, Waukegan, IL

- ❖ Perform comprehensive failure analysis by inspecting and testing returned products for major customers such as John Deere, Case New Holland, and Boeing.
- ❖ Thorough failure analysis of products have gained knowledge on corrosion and fatigue of various metals, failure modes of dynamic and static sealing elastomers, and tribology of various sealing components.
- ❖ Provide vital manufacturing support by spearheading design, testing, and implementation of test fixtures and equipment to create new product designs.
- ❖ Leverage geometric dimensioning and tolerancing (*GD&T*) to optimize design process.
- ❖ Actively support and respond to vendor and in house issues experienced during machining, grinding, hardening, plating, bonding, lapping, laser marking, assembly and testing of 2,800 models across 11 product families.
- ❖ Proactively formulate potential countermeasures to prevent re-occurrence of failure mode and implement upon validation when applicable.
- ❖ Installed and effectively maintain multiple testing motors, pneumatic presses, hydraulic lifts, laser markers, and other manufacturing equipment
- ❖ Support Research and Development activities by performing material comparison testing to reduce expenses and expedite production.

Mechanical Engineer Intern; June 2009

Oracle Forensics Inc, Phoenix, AZ

- ❖ Engineering intern on fire personal injury cases.
- ❖ Learned how to apply scientific principles during internship. Case examples:
 - ❖ Exercised sharp critical thinking abilities to perform forensic and engineering work on major fire loss project involving fault currents associated with a neon sign.
 - ❖ Conducted failure analysis of a dryer which overheated and caught fire from high-limit and centrifugal switch malfunction.