OLIVIA SMITH

CAE Engineer





PROFESSIONAL SUMMARY

Driven CAE Engineer with 5 years of experience specializing in advanced simulations and structural analysis. Adept at optimizing product designs through innovative computational methods and cross-functional collaboration, resulting in enhanced performance. Committed to leveraging technical expertise to propel engineering projects forward and contribute to organizational success.

WORK EXPERIENCE

CAE Engineer # Jan / 2021-Ongoing **Quantum Solutions LLC** ♣ Phoenix, AZ

1. Developed comprehensive project plans and documentation to guide engineering teams through the simulation

- 2. Executed linear static, dynamic, impact, fatigue, and crash analyses to assess product durability and performance.
- 3. Utilized LS-DYNA software for structural crashworthiness simulations, evaluating vehicle performance under various impact scenarios.
- 4. Conducted stiffness evaluations for Body-in-White (BIW) and body closures to ensure structural integrity.
- 5. Facilitated cross-functional collaboration to gather input for developmental planning.
- 6. Created detailed Finite Element Analysis (FEA) models for various load cases, enhancing predictive capabilities.
- 7. Validated CAE predictions against physical test data to improve modeling accuracy and reliability.

CAE Engineer # Jan / 2020-Jan / 2021

Cactus Creek Solutions **耳** Phoenix, AZ

- 1. Constructed FEA models to simulate supersonic wave propagation utilizing the Coupled Eulerian-Lagrangian method in Abaqus.
- 2. Performed optimization analyses for components such as belt clips and pump housings, improving design robustness.
- 3. Analyzed motion data under blast conditions using Origin and ProAnalyst to inform design adjustments.
- 4. Presented technical feedback during weekly meetings, leading to successful implementation of design modifications.
- 5. Conducted FEA analysis on steering systems using PTC Creo, assessing stress levels and fatigue life under various conditions.

EDUCATION

Master of Science in Mechanical Engineering

m Jan / 2019-Jan / 2020

University of California

耳 Denver, CO

Focused on computational mechanics and simulation techniques.

SKILLS

Data Analysis Software Project Management Finite Element Analysis Computational Fluid **Dynamics** 10 10

ACHIEVEMENTS



Increased simulation accuracy by 20% through enhanced modeling techniques.



Led a project that reduced product development time by 15% using efficient simulation workflows.