

Jon Ell

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EDUCATION

Aug 2016 — Jun 2022	Ph.D. and MS in Materials Science and Engineering, University of California, Berkeley Minor in Nuclear Engineering and Business
Aug 2012 — Jun 2016	BS in Materials Science and Engineering, University of Washington Minor in Nanoscience and Molecular Engineering

RELEVANT EXPERIENCE

Jun 2023 — Present	Test Design Engineer - New Glenn Rocket, Blue Origin	Kent, WA
Led, performed, and accelerated the pace of qualification and acceptance testing of mechanical systems components for the New Glenn rocket. Promoted from Test Engineer II to Test Engineer III during tenure.		
<ul style="list-style-type: none">• Separation system (~135kN pneumatic actuators) - Reduced acceptance testing time from 40 hours to 4 hours per actuator and transitioned from an all manual procedure personally executed to a mostly automated procedure that is performed by technicians.• Barge deck attachment mechanism (ordnance operated “cannon” to secure booster to barge) - Increased the speed of acceptance and performance testing from a projected speed of 2 days per test to 5 hours per test by reducing requirements, deleting unnecessary processes, and simplifying and optimizing the testing setup and processes.• Hydrazine bottle - Developed and performed the process for cold forming the 304L SS bottle at -45°C.		
Jun 2016 — Jun 2022	Graduate Research Assistant & Lab Manager - Robert O. Ritchie's Lab, UC Berkeley & Lawrence Berkeley National Laboratory	Berkeley, CA
<ul style="list-style-type: none">• Led the testing of mechanical properties and examined the mechanisms of failure for structural materials.• Developed equipment and procedures for mechanical tests from -196 to 1350°C in various environments.• Managed lab materials and equipment. procurement, safety, training, and maintenance		
Jun 2017 — Jun 2022	Failure Analysis Technician, Robert O. Ritchie Consulting	Berkeley, CA
<ul style="list-style-type: none">• Conducted failure analyses on medical devices (IVC filters) to determine the causes and mechanisms of failure.• Determined mechanical properties of medical devices under <i>ex vivo</i> conditions.		
Aug 2016 — Present	Minority Owner & Engineer, Corrosion Mitigation LLC	Seattle, WA
<ul style="list-style-type: none">• Installed and maintained Cathodic Protection Systems on Seattle's I-90 floating bridge, Gas Transmission Northwest pipeline, and bulk storage tanks.		
Jan 2022 — Jul 2023	Owner & Founder, Berkeley Material Analytics LLC	Berkeley, CA
<ul style="list-style-type: none">• Designed and built prototype lab equipment for mechanical testing labs.		
Jun 2015 — Aug 2015	Undergraduate Research Assistant, MIT	Cambridge, MA

SKILLS

Dewesoft, CAD (Solidworks & Fusion360), Python (Spyder)

Component Testing, Failure Analysis, SEM, EDXS