Exponent®
Engineering & Scientific Consulting

Amir Kader

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Professional Profile

Mr. Kader specializes in the design and analysis of mechanical systems. His expertise includes product design and testing, computer aided design, rigid body analysis, finite element analysis, material behavior and failure analysis, design for manufacturing, thermal modeling, thermodynamics, heat transfer, and fluid dynamics.

From his experience in the automotive and clean tech industries, Mr. Kader has led the design and fabrication of numerous pieces of machinery through their ideation, prototyping, analysis, testing, and fabrication phases. He exercises competency in a variety of engineering disciplines: concept design, operator modeling, critical tolerancing, material and component selection, costing, and computational modelling.

Mr. Kader received his M.S. in Mechanical Engineering from Stanford University. During his education, he served as a student instructor for the undergraduate mechanical engineering capstone course. He managed and guided student teams in their projects to develop engineered systems that address real world problems. In his own undergraduate capstone project, Mr. Kader analyzed, developed, and tested a critical safety mechanism to be used for a gravity-based energy storage system. He was also a student researcher in the Bao Group where he led the development and mechanical characterization of a polymer-based electrolyte to be used in solid-state batteries.

Academic Credentials & Professional Honors

M.S., Mechanical Engineering, Stanford University, 2023

B.S., Mechanical Engineering, Stanford University, 2022

Prior Experience

Mechanical Engineering Intern, Antora Energy, 2023

Graduate Student Instructor, Stanford Mechanical Engineering Department, 2022-2023

Engineering Design Intern, General Motors, 2022

Electrical CAD Design Intern, General Motors, 2021

Mechanical Engineering Intern, Halo Industries, 2021

Mechanical Engineering Intern, Redwood Materials, 2020

Mechanical Design and Project Management Intern, SkyCool Systems, 2020