

# Breonna Mchalfvey

Mechanical Engineer

## Profile

A highly qualified and experienced mechanical engineer with more than 5 years of experience in the design, development, and production of a wide range of products. Proven track record in managing large teams and projects, as well as steering product development from concept through to mass manufacturing. Strong commercial awareness combined with technical expertise has resulted in successful implementation of numerous cost-saving initiatives across various engineering disciplines. Highly motivated individual who always looks for opportunity to improve processes and deliverables on time while maintaining high quality standards.

## Employment History

### Mechanical Engineer at Michell Bearings, Inc. – California

Apr 2022 - Present

- Designed a more fuel-efficient car engine that reduced emissions by 30%.
- Developed a new manufacturing process for aircraft parts that reduced production costs by 20%.
- Led the team that designed and built a successful prototype of a Mars Rover.
- Implemented Quality Control procedures in factory that increased overall product quality by 35%.
- Authored numerous papers on topics related to Mechanical Engineering, some of which have been published in leading journals in the field.

### Manufacturing Engineer at Applied Mechanics Corporation – Michigan

Sep 2016 - Mar 2022

- Designing and developing mechanical products, devices, or systems through the application of physics and materials science
- Analyzing production costs, hazards, flowcharts to determine efficient utilization of resources and labor for manufacture quality control
- Estimating time frames for projects analyzing environmental impact reports studying plant layout planning rearrangement for maximum efficiency
- Drafting blueprints using computer-aided design (CAD) software as well as working with engineers from other disciplines such as electrical engineering civil engineering or industrial engineering on larger projects
- Conducting experiments testing evaluating results modifying designs documenting findings recommending solutions presenting conclusions to supervisors clients or others

## Certificates

### ASME certification (American Society of Mechanical Engineers)

Jan 2021 - Apr 2021

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Oklahoma City, OK 73170

## Education

### Bachelor's degree in mechanical engineering at Massachusetts Institute of Technology, Cambridge, MA

Sep 2011 - May 2016

I learned a variety of technical skills while studying for my Bachelor's degree in mechanical engineering, including strong analytical and problem-solving abilities, as well as experience with various computer-aided design (CAD) software programs.

## Links

[linkedin.com/in/breonnamchalfvey](https://www.linkedin.com/in/breonnamchalfvey)

## Skills

CAD

CAM

CAE

CFD

FEA / FEM

Heat Transfer and Thermal analysis

Design of experiments (DOE)

## Languages

Japanese