

Connor Kalvar

Mechanical Engineering Student

MIT Class of 2027 | Portfolio at ConnorKalvar.com

Work, Volunteer & Leadership Experience

RISE INTERN, SE&I TEAM | JRC Integrated Systems – Crane, IN | Jun. 2025-Aug. 2025

Developed new design requirement management system for end to end traceability and coverage tracking using Jira and Confluence to replace existing methods. Worked in multi-disciplinary team to design and create example designs and documentation. New system has automation features that enhance workflow.

UNDERGRADUATE RESEARCHER AT MIT | Cambridge, MA | Spring 2024

Prototyped a system that could track thrown track and field implements to estimate distance based on velocity. Designed a modular mounting system for sensors that could also be used for other types of data collection such as gait speed and balance. This allows athletes to better track progress and gain valuable feedback when throwing into a net at an indoor training facility.

ARCHITECTURE CONSTRUCTION ENGINEERING (ACE) MENTOR CLUB | Trinity High School – Louisville, KY | Sep. 2021 – May 2023

MEP team lead for two laboratory renovation projects – chemistry and physics labs. Created 3D mockups, consulted with the client (Trinity teachers), and oversaw creation of new laboratory designs that better met the needs of the modern classroom. Presented project proposals that were successfully implemented and constructed on time.

Projects

FLYWHEEL DRIVEN DART LAUNCHER ANALYSIS | MIT | Spring 2025

Analyzed data on darts fired from a flywheel driven NERF gun to determine factors that affect behavior of darts. Successfully found and verified the effects of dart type and charge time with data analysis techniques.

VIRTUAL MASS DRIVER PROJECT | Spring 2022 – Present

Created a mass driver system in a virtual combat vehicle simulator that has engagement ranges far beyond other weapon systems in said environment. Designed a novel implementation of this system. Used Excel and MATLAB to help design a control system that accounts for projectile drag to increase accuracy.

TREBUCHET DESIGN BUILD PROJECT | Rose-Hulman Institute of Technology - Terre Haute, IN | Jul. 2021

Designed a floating arm trebuchet that threw tennis balls over 120ft repeatedly and consistently. Coordinated with two other students and Rose-Hulman Mechanical Engineering professors to create the design from scratch while working in space constraints.

Education

2023-2027

Massachusetts Institute of Technology (MIT) | Cambridge, MA
Mechanical Engineering Major

GPA 4.5/5.0

Two Year Member of Men's Varsity Track & Field Team

2019-2023

Trinity High School | Louisville, KY
GPA Core 4.0 | Weighted 5.45

Skills

- Excel Master Class for Engineers - Summer 2024 Certification
- Microsoft Office, PowerPoint, Word & Excel
- CAD: Autodesk Fusion 360, Siemens NX
- MATLAB

Contact

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