

Vaughn Khouri

Cambridge, MA | Piedmont, CA

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Education

Massachusetts Institute of Technology

08/2025 - 06/2029

B.S. Mechanical Engineering; Control, Instrumentation & Robotics (2A-CIR)

- GPA: 5.0/5.0, Planned Minor in Materials Science and Engineering (3)

Piedmont High School

09/2021 - 07/2025

- Weighted GPA: 4.37/4.00, ACT: 36/36

Experience

Brakes Subsystem, Dyno lead (MIT Motorsports FSAE Team)

Since 09/2025

- Leading architecture, design & fabrication of a custom dynamometer platform
 - Measures torque, allowing characterization of our motors and inverters under load
- Size, design, simulate, and validate custom-machined brake rotors and mounting buttons in Siemens NX. Fabricate rotors & buttons in-house
- Present design reviews to drivetrain Team members & alumni

Founding Engineer, Platform Development (Acre Robotics)

Summer 2025

- Led development for the MVP testing platform at Acre Robotics, a Series A startup
- Designed and installed hardware (Actuators, cameras, GPS, housings, etc.), electronics (NVIDIA Jetson & ESP32) to enable autonomy on a Case 75A tractor
 - Completed a full-size, field-test ready MVP in less than 30 days

Team Captain (FIRST Robotics Competition Team 8033)

09/2021 - 07/2025

- Led growth from founding season to robust organization with 50+ students from 17+ high schools, placing in the top 16 worldwide. Top 15 in CA 2022-2025.
- Set DRs, lead training & all-team meetings, prototype, design, & iterate subsystems, and drove robot at four world championships
- Honored as Dean's List Finalist

Apple ETC I/II Student (Apple)

Summer 2023, 2024

- One of fifteen selected for two on-site summer programs at Apple
- Practiced ME, EE, and many topics in PD in sessions alongside Apple engineers
- Led 5 person teams to design and build fully functional prototypes of novel products, created presentations, planned and executed live demos during stage pitches to John Ternus & other Apple executives

Events Planning Lead (MIT Entrepreneurship Club)

Since 09/2025

- Manage relationships with VCs and visiting speakers
- Plan and promote events & workshops for students that draw 200+ attendees

FRCDesign (<https://www.frcdesign.org>)

Since 2024

- Cofounded the first broad online learning platform for FIRST Robotics hardware design
- Contributed extensively to authoring core curriculum
- Drove substantial growth from launch to 7000+ active users across 21+ countries

Skills

More info and full project writeups on my portfolio, www.vkhour.dev

CAD / CAM Tools PTC Onshape, Siemens NX, Solidworks, Fusion 360, Inventor

Machine Tools Manual/CNC Mill, Lathe, MIG & TIG Welding, Waterjet / Fiber Laser, FDM / SLA / SLS 3D printing, All common wood / metalworking tools

Other Conversational Mandarin (including reading / writing), First Aid & Outdoorsmanship (Eagle Scout), Basic PCB Design & Microsoldering