

MICHAEL CHAN

New York, NY

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Education

Boston University

Sept. 2023 – May 2027

Bachelor of Science in Mechanical Engineering

Boston, MA

Relevant Coursework: MATLAB, Electric Circuits, Thermodynamics, Material Science, Mechanics of Materials, Mechanics

Projects

Accumulator Cart | *BU Terrier Motorsports*

Feb. 2025 – Apr. 2025

- Designed an accumulator cart, providing detailed drawings of the parts and designs.
- Researched and selected materials for parts based on performance and cost efficiency.

Line Following Car | *Intro to Engineering Design*

Apr. 2025

- Designed and evaluated multiple car models in Onshape through trial-and-error to identify the most time-efficient, cost-effective, and innovative solution, resulting in a finalized 3D-printed design.
- Calculated load capacity and force distribution for selected wheels, ensuring structural support of up to 600g with 15N per wheel.

Control Arm Bracket | *BU Terrier Motorsports*

Sept. 2024

- Engineered and analyzed a control-arm bracket in SolidWorks, using finite element analysis (FEA) to validate load cases and ensure a minimum factor of safety of 1.5.
- Compared steel and aluminum alloys by analyzing strength-to-weight ratios, cost, and corrosion resistance, selecting 2014-T4 aluminum to reduce unsprung mass while maintaining durability.

Temperature Sensor Box | *Intro to Engineering: Hands On*

Feb. 2024 – Apr. 2024

- Designed and modeled a sensor box using Onshape, ensuring part optimization for 3D printing and assembly.
- 3D printed custom parts, including a battery holder, utilizing Cura for optimal design and fit.
- Programmed a temperature sensor functionality through Arduino, developing and testing code for accurate sensor readings and integration with a display and alerts.

Tower Building | *The City College of New York*

July 2021

- Developed a tower capable of withstanding a significant amount of weight and demonstrated precision in measurements operating a band saw.
- Served as a team leader in the group, fostering a collaborative, innovative, efficient, and resourceful environment to ensure the team's overall success.

Skills

Computer Aided Design: SolidWorks, Onshape, Fusion 360

Hardware: Bridgeport Mill, Drill Press, 3D printing, Soldering, Band Saw, CNC Mill, Lathe, Laser Cutting, TIG Welding, CNC Lathe, Press Brake

Software: MATLAB, Cura, Arduino, Python, Unreal Engine, C, HTML/CSS, Microsoft Office, Bambu Studio

Leadership

Unmanned Aerial Vehicle (UAV)

Feb. 2024 – Present

Technical Leader

Boston University

- Led and mentored new members in soldering techniques and drone assembly.
- Supported a workshop on Onshape, demonstrating core CAD functionalities and assisting members with modeling tasks.
- Designed and prepared presentations for QuadPlane workshops.

Activities

Member, Terrier Motorsports

Sept. 2024 – Present

Member, Kendo

Sept. 2023 – Apr. 2024

Experience

Z and Li Wellness Accupuncture PLLC

Jul. 2023 – Aug. 2023

Office Administration Intern

New York, NY

- Produced engaging content over various social media platforms and distributed 100+ brochures weekly.
- Efficiently scheduled appointments for both new and existing patients, assisted with data entry, and managed multiple phone calls daily.