

Joel Y. Abu

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Education	Massachusetts Institute of Technology (MIT) Candidate for Bachelor of Science	Cambridge, MA May 2029
	Frederick High School (FHS) Class Rank: 3rd out of 478; GPA: 4.0/4.0 Coursework in Calculus, Physics, and Latin	Frederick, MD May 2025
Work Experience	National Cancer Institute, LCDS <i>Segmentation Scientist Intern</i>	Fort Detrick, MD June 2024 - May 2025
	<ul style="list-style-type: none">Segmented and modeled several multiciliated centriole cells using data collected via FIB-SEM to create 3D modelsCommunicated insights from 3D segmentations at a summer poster dayTrained by and eventually assumed role of lab's postbac who specialized in segmentation with Dragonfly ORS	
	Kumon North Frederick <i>Center Assistant</i>	Frederick, MD Mar 2024 - Jun 2024
	<ul style="list-style-type: none">Graded and prepared homework and classwork assignments for over 40 students	
Activities & Awards	MIT Motorsports FSAE Team Electrical Team / PCB Design	Cambridge, MA Sept 2025 - Present
	FIRST Robotics Competition Team #7886 <i>Team Captain</i>	Frederick, MD Aug 2021 - May 2025
	FHS Model United Nations <i>Senior Member</i>	Frederick, MD Sep 2022 - May 2025
	FHS Computer Science Honor Society <i>Club Secretary</i>	Frederick, MD Sep 2022 - May 2025
	Naval Horizons Essay Highest Honors Award (x2) Received awards from Department of Navy for essays on science topics	Aug 2023 and Aug 2024
Project Experience	Electric Longboard <ul style="list-style-type: none">Building an electric longboard with a self-built lithium-ion battery pack, USB-C PD charging, and a belt-pulley system	Jun 2025 - Present
	Brushless Motor Robot Actuator <ul style="list-style-type: none">Designed with Onshape and assembled a robot actuator using a quadcopter motor and a two-stage belt-pulley gearbox	Sep 2024 - Mar 2025
Skills	Google Suite, Java, Figma, KiCad, Altium, Soldering, Onshape, Dragonfly ORS	