



Mohsen Alowayed

Education

Massachusetts Institute of Technology

Candidate for Bachelor of Science in Mechanical Engineering GPA 4.9/5.0

Cambridge, MA

Expected 2018

Professional Experience

King Abdullah University for Science and Technology

Research Intern in the Advanced Semiconductor Laboratory

Thuwal, KSA

May 2017 - Present

- Simulated light extraction of InGaN based nanowire lasers based on hyperuniform structure

Bell Helicopter

Engineering Intern in the Manufacture Research and Development Laboratory

Fort Worth, TX

Jun - Aug 2016

- Programmed a vision system for automatic defect detection using liquid penetrant inspection
- Built carbon fiber reference standards for ultrasonic equipment calibration
- Designed and performed experiments on composite hole drilling using an industrial robot
- Designed a probe holder to aid in through transmission ultrasonic inspection

MIT Space Propulsion Laboratory

Undergraduate Researcher - Development of modular ion thrusters for cube satellites

Cambridge, MA

Nov - Dec 2015

- Built an experimentation setup to hold the ion thrusters in a vacuum chamber
- Set up and wired the experimentation equipment for data collection

MIT Vortical Flow Research Laboratory

Undergraduate Researcher - Development of autonomous swarming buoys for monitoring dynamic ocean environments

Cambridge, MA

Jun - Aug 2015

- Designed and implemented an electronic system for motor control and to enable capabilities such as GPS, Wi-Fi communication, and local SD card storage
- Programmed Arduino for testing movement proficiency and implemented a PID controller
- Developed a CAD model of the buoy for use in CFD simulations

Additional Experience

International Physics Olympiad

Student Competitor

Astana, KZ

May - Jul 2014

- Trained for 3 months per year for two years on advanced physics problem solving
- Won a bronze medal in 2014 and an honorable mention in 2013

Copenhagen, DK

May - Jul 2013

High School VEX Robotics Team

Team Leader

Riyadh, KSA

Feb - Apr 2012

- Led the design strategy, and in doing so, reviewed past robot design elements
- Designed and built the chassis, gear system, and lifting arm
- Won 1st place nationally in Saudi Arabia and competed in the World Championship in L.A.

Personal Projects

View my portfolio at www.alowayed.com

- Designed, machined, and assembled a motorized longboard
- Engaged in multiple woodworking and metalworking projects

Skills

Language	Fluent in English and Arabic	Media	Photoshop, Illustrator, Premiere, InDesign
Programming	Python, Java, C#, C++, C, HTML, CSS, Javascript, MATLAB	Building	Mill, Lathe, Composite layup, Woodworking, Blacksmithing, 3D Printing
Design	SolidWorks, CATIA, Mastercam, Blender	Equipment	Raman Spectroscopy, HRXRD, UV-Vis Spectroscopy