

# Omar Ab Aziz

5887, Lorong Sri Cahaya 6, Kampung Melayu Subang, 40150 Shah Alam +6013-681-1901 omaraziz@bu.edu  
Portfolio: <https://omaraziz0.wixsite.com/projectportfolio>

## PROFILE

Entry-level engineer who demonstrated leadership in organizations and has extensive hands-on experience in product design and development. Proficient in multiple CAD software and is familiar with machine shop tools including CNCs.

## EDUCATION

**Boston University College of Engineering**, Boston, MA  
*Bachelors of Science in Mechanical Engineering, May 2017*

**Relevant Courses:** Automated Manufacturing, Supply Chain and Manufacturing Strategy, CAD Design, Heat Transfer, Product Development, Engineering Economics, Fluid Dynamics, Mechanics of Materials, Statics, Dynamics

## WORK EXPERIENCES

**BU Automated Design and Manufacturing Lab**, Boston, MA May 2017 – Aug 2017

*Research Assistant*

- Develop a flexible manufacturing cell simulation by integrating collaborative-robots, CNC mills and lathes, conveyors, and vision systems for use as a demonstration for future students
- Design and build a plastic car using CAD software and CNC mills
- Automate production of car using a Computer Integrated Manufacturing (CIM) software, collaborative-robots and a conveyor

**BU Nano Heat Transfer Lab**, Boston, MA Jun 2016 – Jul 2017

*Research Assistant*

- Studied the fundamental physics of thermal energy at the nanoscale, ultrafast laser measurement techniques, and laser-material interaction to gain insight into heat transfer at the atomic scale
- Designed and built a cryostat using CAD software, CAM software, CNC mill, drill and tap to test experimental samples under low temperature while minimizing cost

**Boston University Dining Services**, Boston, MA Jan 2015 – May 2017

*Student Manager*

- Successfully managed and supervised student workers during operating hours and after closing without incident
- Trained new student managers as successors to the role

## PROJECTS

**Senior Project: “Custom Modular Fixture,”** BU Engineering Product and Innovation Center (EPIC)

- Designed and built a custom modular fixture for our client to use in their HAAS VF-2 CNC machine, as part of a team of 5 engineering students
- Resolved forces and stresses the design will need to withstand, and compared them to the tensile strength of the material as well as the strength of the design to ensure the design can withstand being milled on
- Built fixture prototype and tested it for repeatability and strength requirements using mills and indicators
- Created bill of materials, technical drawings and a user manual for client to reproduce our project in the future

**“Retractable Spiked Shoes Design”**

- Developed a product to help customers walk on ice without slipping, as part of a team of 4 students
- Went through the steps in product development including meeting with potential customers, making morph charts and iterating designs, and manufacturing product prototype

**“Obi-Wan’s Lightsaber,”** Personal Project

- Designed and 3D printed the lightsaber Obi-Wan Kenobi used in Star Wars: The Revenge of The Sith

**Additional Projects:** Plymouth Taskforce for the Homeless App, RC Car Automated Manufacturing, Custom Frying Pan, Cryostat, Truss Building Project, Wax Candle Designing

## LEADERSHIP AND EXTRACURRICULAR

**Treasurer, Feel Good World BU**, Boston, MA Sep 2013 – May 2017  
**Graphic Designer, Global App Initiative**, Boston, MA Sep 2013 – May 2014

## SKILLS

Software Competencies: Solid Works, Microsoft Office, PTC Creo, Autodesk Fusion360, AutoCAD, GibbsCAM, Adobe Photoshop  
Additional Skills: Product Development, Turning, Milling, Drilling, CNC milling, Collaborative Robot Programming, SPC, Lean Manufacturing