

MICHAEL ABADJIEV

Portfolio: wpi.edu/~msabadjiev

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OBJECTIVE

Obtain an internship for the summer of 2019 in Mechanical or Robotics Engineering

EDUCATION

Worcester Polytechnic Institute (WPI), Worcester, MA

May 2020

- Bachelor of Science in Mechanical Engineering and Robotics Engineering
 - GPA: 3.26/4.0 Major spec: 3.4/4.0

SKILLS/CERTIFICATIONS

Computer: SolidWorks • SolidWorks PDM • Inventor • Fusion • AutoCAD • GrabCAD • Matlab • Java • Python • ROS kinetic • HTML/CSS • Arduino • Github • Microsoft Office

Tools: 3D printer • Laser cutter • Oscilloscope • Function Generator • Lathe • Drill press • Hydraulic shear • Vertical/horizontal bandsaw • Rotary grinder • Belt sander

Certifications: CSWA • OSHA 10 hour General Industry

Foreign Languages: Bulgarian (bilingual) • French (fluent) • German (basic)

PROJECTS: wpi.edu/~msabadjiev

Unified Robotics III/IV | Robotic Arm and SLAM Robot

August 2018 - December 2018

- Implemented control of a 3 degree of freedom robotic arm to sort objects by weight and color
- Implemented Simultaneous Localization and Mapping on a turtlebot 3 burger using a LIDAR sensor
- Used trajectory planning, kinematics, and PID control for smooth motion between points - both robots

Unified Robotics I/II | Nuclear Reactor and Firefighting Robot

January 2018 - May 2018

- Designed and built robots to 1) refuel a “nuclear reactor”, and 2) navigate a maze to extinguish candle
- Documented design and build process for mechanical, electrical and software systems of both robots
- Fully detailed Bill of Materials and assembly process for both robots

Software Engineering | Interactive Map Kiosk

October 2017 - December 2017

- Designed and developed a map application for kiosks in the Brigham and Women’s hospital full stack
- Coordinated 10 person team as project manager and led UI development

Rapid Prototyping Independent Study Project

March 2017 - October 2017

- Modified a 3d printer to allow it to print continuously with a widely adaptable mechanical system
- Presented and documented achievements and analyzed conceptual feasibility for commercial use

LEADERSHIP

Society of Automotive Engineers (SAE) | Worcester, MA

September 2016 - Present

Treasurer (2016-2018)

- Managed \$20,000 budget for a team of 25+ to design and build a racecar
- Manufactured bodywork for 2018 competition car
- Scored 43rd out of 120 overall and 3rd in fuel efficiency at Formula SAE Michigan international

Collablab | Worcester, MA

September 2016 - Present

Lab Monitor

- On campus makerspace geared toward facilitating student’s personal projects
- Lab monitors ensure lab safety and help educate new members

WORK EXPERIENCE

Milara Inc. Milford, MA

June 2017 - August 2017

Mechanical Engineering Intern

- Designed a new pre-aligner test station for repeatability testing of Milara’s Equipe product
- Managed incoming parts for assembly projects, sorting them by subassembly