MICHAEL ABADJIEV

36 Jensen Road, Watertown, MA, 02472 ● msabadjiev@wpi.edu ● 617-966-6612 ● wpi.edu/~msabadjiev

OBJECTIVE:

Seeking a full-time job where my double major in robotics and mechanical engineering, along with extensive project experience, technical and social skills can help achieve company goals.

EDUCATION:

Worcester Polytechnic Institute (WPI) Worcester, MA — May 2020

- Bachelor of Science in Mechanical Engineering and Robotics Engineering — GPA 3.58 /4.0
  - Advanced coursework: Advanced Engineering Design, Unified Robotics I-IV, Thermofluid Applications and Design, Engineering Experimentation, Software Engineering

WORK EXPERIENCE:

ATech Turbine Components Auburn, MA — Summer 2019

Process Quality Improvement Engineering Intern

- Developed/improved overhaul routines for Pratt & Whitney Canada Jet Engines
- Created hydraulic shank-nut flaring tool to replace manual tool
- Prototyped an automated grinding solution for separating combustion liners

Autopart.com Watertown, MA — Summer 2018

Engineering Intern

- Developed a new product and improved current designs for a timing belt locking tool
- Maintained and updated website functionality using ASP classic, SQL, and a Microsoft Access database

Milara Inc. Milford, MA — Summer 2017

Mechanical Engineering Intern

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

SKILLS/CERTIFICATIONS:

Computer: SolidWorks ● SolidWorks PDM ● SolidWorks Simulation (FEA and Thermal) ● Fusion ● Linux ● Matlab ● Java ● Python ● ROS ● Arduino ● Github ● Microsoft Office

Tools: 3D printer ● Laser cutter ● Oscilloscope ● Function Generator ● Lathe ● Vertical Mill ● Vertical/horizontal bandsaw ● Grinders ● Belt sander

Certifications: CSWA ● OSHA 10 hour General Industry

Foreign Languages: Bulgarian (fluent) ● French (advanced) ● German (basic)

PROJECTS:

Lionfish Hunting Robot (Major Qualifying Project) — September 2019 – Present

- Developing a robot to autonomously track and capture lionfish – an invasive species in the Caribbean
- Leading hardware team to develop a harvesting mechanism to attach to a Blue Robotics BlueROV2
- Project goal is to operate fully autonomously (untethered) and perform rudimentary SLAM underwater

Society of Automotive Engineers (SAE) — September 2016 – Present

- Composites team lead for bodywork design and manufacturing for a Formula 1 style racecar
- Designing electronic shifting mechanism with improved speed and reliability for 2020 competition car

Unified Robotics I-IV | WPI Robotics Sequence — January 2017 – December 2018

- Used industry standard tools and principles including ROS, SLAM and PID controllers
- Created custom robots for challenges like sorting with a 3-axis arm and blowing out a candle in a maze
- Iterated designs over a short production cycle using 3d printers and laser cutters for rapid prototyping
- Documented detailed design and build process with preliminary and critical design reviews

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/ACTIVITIES:

SAE – *Shift System Engineer (2019 – Present), Composites Lead (2018 – Present), Treasurer (2017 – 2018)*

Collablab – *Lab Monitor (2017 – Present)*