Zeynep Seker

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EDUCATION

Worcester Polytechnic Institute - Robotics Engineering   **Worcester, MA**

Related Coursework: Software Engineering, Object-Oriented Design Concepts *(Java)*, Embedded Computing in Engineering Design *(C++)* Industrial Robotics, Robotics Navigation, Robotics Manipulation, Robotics Sensing, Robotics Actuation, Introduction to Programming *(Python)*

Aug 2017 - May 2021

GPA: 3.73/4

Worcester Polytechnic Institute - Mechanical Engineering   **Worcester, MA**

Related Coursework: Advanced Engineering Design, Thermodynamics Application and Design, Heat Transfer, Fluid Mechanics, Stress Analysis, Manufacturing Sciences/Prototyping *(Esprit CAM)*, Introduction to Electrical and Computer Engineering

Aug 2017 - May 2021

GPA: 3.73/4

PROFESSIONAL EXPERIENCE

VEO ROBOTICS, Robotics Engineer I   **Waltham, MA**

Mar 2023–Present

- Programming internal data analysis and visualization tools, and test cases for time of flight sensors and FPGA protocols using Python
- Designing, configuring, and optimizing industrial workcells using FreeMove safety systems
- Involved in designing of new software features and UX
- Working with various teams to project manage the research and development of new features
- Setting up industrial robots from various manufacturers - Fanuc, ABB, Kuka, Yaskawa, Kawasaki
- Testing and investigation of new software features
- Documenting feature requirements and descriptions, system configuration, and Robot Support Packages
- Working with PLC logics for workcell optimization - Allen Bradley, Siemens

VEO ROBOTICS, Interim Test Engineer   **Waltham, MA**

May 2023–Jan 2024

- Writing system requirements and test cases for features under development
- Performing FMEA (Failure Mode and Effects Analysis) on new features
- Tracing system requirements to test cases on Helix
- Executing official tests on software products
- QA tests ran by the rest of the team

VEO ROBOTICS, Jr. Robotics Engineer   **Waltham, MA**

Dec 2021–Mar 2023

- Programming internal data analysis tools and test cases FPGA protocols using Python
- Designing, configuring, and optimizing industrial workcells using FreeMove safety systems
- Setting up industrial robots from various manufacturers - Fanuc, ABB, Kuka, Yaskawa, Kawasaki
- Testing and investigation of new software features
- Documenting system configuration, and Robot Support Packages
- Working with PLC logics for workcell optimization - Allen Bradley, Siemens

VEO ROBOTICS, Systems Engineer Intern   **Waltham, MA**

Jul 2021–Dec 2021

- Setting up industrial robots from various manufacturers and performing velocity test on them - Fanuc, ABB, Kuka
- Wiring and establishing communication between robot controllers and FreeMove safety system
- Preparing and maintaining Robot Support Packages, and configuration documentation

ADDITIONAL SKILLS

- **Programming Languages:** Python, C++, RAPID, Java, MATLAB, ROS, MathCAD, Maple, JavaFX
- **Software Development Tools:** Vim, IntelliJ, Eclipse, Visual Studio Code, Robot Studio, Work Visual, Github, Linux (Ubuntu)
- **Industrial Robots:** Fanuc, ABB, Kuka, Yaskawa, Kawasaki
- **Agile Project Management Tools:** Github Projects, OpenProject, Helix, Trello, Slack, Odoo
- **Design:** SolidWorks, AutoCAD, Adobe Photoshop, Adobe Illustrator, Adobe Premiere Pro, Fusion360, Scene Builder, ESPRIT CAM, ANSYS
- **Prototyping:** 3D Printing, Laser Cutter, Machine Shop User
- **Languages:** Turkish (Native), English (Fluent), Italian (Beginner), French (Beginner)

Related Projects

Context-sensitive Safety Monitoring of Collaborative Work Environments, Veo Robotics   **Waltham, MA**
2023

- Worked on the research and development of context-sensitive safety monitoring of collaborative work environments
- Patent no: US-20230173682-A1
- Patent no: US-20220324111-A1

Navigational Kiosk, WPI & Brigham and Women's Faulkner Hospital   **Worcester, MA**
Jan 2020–Mar 2020

- The Project Manager on a software team
- Responsible for managing project tasks, coordinating the team, and keeping all of the members motivated
- Led using agile methodology
- A Software Engineer for the team
- Used an A* Path Finding algorithm for the navigational computation
- Used Scene Builder and Java FX for building user interface
- Used Apache Derby for the application database
- Designed graphic content on Adobe Photoshop

Autonomous Drone Pollination, WPI   **Worcester, MA**
Aug 2020–May 2021

- Developed a drone capable of autonomous pollination in a region
- Designed and developed a search algorithm that locates flowers navigates between them *(C++ on a Raspberry Pi Zero)*
- Designed, tested, prototyped and manufactured an actuated end effector used for pollen distribution
- Helped design, test, prototype and manufacture a drone
- Used on-board processing for dynamic image tracking
- Established communication with an onboard flight controller