

# Anton Yanovich

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## EDUCATION

### Carnegie Mellon University

Master of Science in Mechanical Engineering | GPA: 3.98/4.0

Pittsburgh, PA

May 2024

### The George Washington University

Bachelor of Science in Mechanical Engineering, Minor in Business | GPA: 3.68/4.0

Washington, DC

May 2023

**Selected Coursework:** Advanced Engineering Computations (C/C++), Creativity, Mechanical Systems Design, Robot Learning, Visual Learning & Recognition, Computer Vision, Modern Control Theory

## PROFESSIONAL EXPERIENCE

### AirLab, Robotics Institute, Carnegie Mellon University

#### Research Assistant

Pittsburgh, PA

Aug. 2024 - Present

- Spearheading integration of stereo thermal sensors to improve autonomous navigation in diverse weather conditions.
- Engineering custom sensor mounts via SOLIDWORKS for robust performance.
- Streamlining real-time data acquisition with data synchronization and processing using a Teensy microcontroller and ROS.
- Collaborating closely with cross-functional teams to deliver practical and efficient solutions.

### Biofluids and Dynamics Lab, George Washington University

#### Summer Research Fellow

Washington, DC

June 2021 - Aug. 2023

- Led the design and assembly of hardware components for cardiovascular flow modeling experiments, showcasing strong project management and practical engineering expertise.
- Collaborated closely with machine shop staff and mentors to enhance the efficiency of manufacturing and assembly processes, resulting in significant improvements to the overall project timeline.

### Drone Point Solutions

#### Product Engineering Intern

Washington, DC

Jan. 2022 - Sept. 2022

- Generated insight into the EV and power management industries by performing in-depth research on relevant technologies.
- Presented viable designs and solutions for rapid drone charging with a focus on customer requirements.

## SELECTED PROJECTS

### Offroad Autonomous Vehicle Control

#### AirLab, Robotics Institute, Carnegie Mellon University

Mar. 2024 - May 2024

C++, Python, LibTorch, ROS, CMake

- Developed an efficient control system in C++, doubling computation speed and enhancing decision-making.
- Implemented the system with LibTorch and CMake, ensuring consistent performance through extensive simulations.

### Synthetic Dataset Generation for Offroad Navigation

#### AirLab, Robotics Institute, Carnegie Mellon University

Feb. 2024 - May 2024

Python, PyTorch

- Refined and advanced image translation methodology for creating high-quality synthetic images that aid in vehicle navigation training.
- Worked with various generative models, such as diffusion and GAN-based, to achieve reliable image generation via PyTorch.

### IoT Public Health Device Concept

#### Capstone Design Project, George Washington University

Aug. 2022 - May 2023

SOLIDWORKS, Arduino, C++

- Spearheaded the multidisciplinary design and development efforts of a disease-tracking and sanitization device.
- Designed physical prototypes via SOLIDWORKS with motion and temperature sensing integration.
- Contributed to the development of data processing software by enabling data collection and transfer with Arduino.
- Conducted market research to improve the project's commercial viability for startup contests.

## LEADERSHIP & VOLUNTEERING

### Section Chair

#### American Society of Mechanical Engineers (ASME), George Washington University

Washington, DC

Sept. 2021 - May 2023

- Successfully revitalized and led the ASME student chapter, significantly enhancing its presence within the university community.
- Developed and maintained strong relationships with faculty and peers, supporting the chapter's networking and professional development opportunities.

## SKILLS

### Programming Languages:

Python, C/C++, JAVA, LaTeX, MATLAB, HTML

### Libraries:

PyTorch, Numpy, Pandas, OpenCV, OpenGL, Matplotlib, Scipy

### Environment/Tools:

Windows, Linux, ROS, AWS, Jupyter, MS Office

### CAD Tools:

Inventor, SOLIDWORKS, SolidEdge, SketchUp

### Languages:

English (fluent), Russian (native), French, Romanian.