Anton Yanovich

Education

Carnegie Mellon University

Pittsburgh, PA

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

May 2024

The George Washington University

Washington, DC

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

May 2023

Completed Coursework: Modern Control Theory, Nonlinear Control, Machine Learning, Computer Vision.

Current Coursework: Visual Learning & Recognition, Robot Learning, Advanced Engineering Computations (C/C++).

Selected Projects

Thermal Sensing Integration

April. 2023 - Present

AirLab, Robotics Institute, Carnegie Mellon University

SOLIDWORKS, C++, Python, Teensy, ROS

- · Spearheading integration of stereo thermal sensors to improve autonomous navigation in diverse weather conditions.
- Utilizing SOLIDWORKS to design and fabricate custom sensor mounts.
- Implementing data synchronization and system compatibility using Teensy and ROS.

Offroad Autonomous Vehicle Control

Mar. 2024 - May 2024

AirLab, Robotics Institute, Carnegie Mellon University

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

Feb. 2024 - May 2024

AirLab, Robotics Institute, Carnegie Mellon University

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

Aug. 2022 - May 2023

Capstone Design Project, George Washington University

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.

Experience

Biofluids and Dynamics Lab, George Washington University

Washington, DC

Summer Research Fellow

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

Washington, DC

Product Engineering Intern

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.

Leadership & Volunteering

Section Chair

Washington, DC

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

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 OfficeCAD Tools:Inventor, SOLIDWORKS, SolidEdge, SketchUpLanguages:English (fluent), Russian (native), French, Romanian.