Anton Yanovich

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https://belivan.github.io/ | https://github.com/belivan

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. 2024 - 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 Office
CAD Tools: Inventor, SOLIDWORKS, SolidEdge, SketchUp
Languages: English (fluent), Russian (native), French, Romanian.