Anton Yanovich

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PROFESSIONAL SUMMARY

Dynamic engineer passionate about robotics and automation, recognized for quick understanding and solving complex technical challenges. Excels in hands-on project execution and leadership, guiding multi-disciplinary teams effectively. Offers a broad skillset, sharpened by rigorous academic training, and is committed to driving innovation and efficiency in the robotics industry.

EDUCATION

Carnegie Mellon University Pittsburgh, PA
Master of Science, Mechanical Engineering May 2024
GPA: 3.96/4.0
Completed Coursework: Modern Control Theory, Machine Learning, Computer Vision, Engineering Computations
Current Coursework: Visual Learning & Recognition, Robot Learning, Advanced Engineering Computations

The George Washington University Washington, DC
Bachelor of Science, Mechanical Engineering, Minor in Business May 2023
GPA: 3.68/4.0
Awards & Accomplishments: Presidential Academic Scholarship, SUPER Research Fellowship, Pelton Prize Nominee, Pitch George Finalist, New Venture Competition Semi-Finalist

TECHNICAL SKILLS

Software: VS Code, ROS, MATLAB, Simulink, Microsoft Office Suite, Adobe Creative Suite
Programming Languages: Python, C/C++, JAVA, LaTeX, MATLAB, HTML
Operating Systems: Windows, Linux, Mac OS
CAD Tools: Inventor, SOLIDWORKS, SolidEdge, SketchUp
Languages: English, Russian, French, Romanian

EXPERIENCE

Carnegie Mellon University, AirLab Pittsburgh, PA
Research Assistant, TartanDrive October 2023 – Present

- Integrate thermal imaging sensors into autonomous offroad vehicles, focusing on the development of learning-based visual models to improve navigation precision.
- Configure and optimize ROS-based sensor driver packages, ensuring compatibility with the current system.
- Investigate and apply learning-based methods in vision and control theories to enhance the performance of autopilot systems.

George Washington University, Biofluids and Dynamics Lab Washington, DC
Research Assistant, MTV to Measure Wall Shear Stress in Model Cardiovascular Flows June 2021 – August 2023

- Led the design and assembly of 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 January 2022 – September 2022

- Developed innovative design solutions for rapid drone-charging systems, aligning with industry trends.
- Conducted comprehensive research into EV, solar power, and power management industries, enhancing startup strategic approach to technology development.

ACADEMIC PROJECTS

Self-Driving Car & Drone Controller Project Pittsburgh, PA
Modern Control Theory Course, Carnegie Mellon University November 2023 – December 2023

- Developed a range of advanced control systems for a car in a Webots simulation, employing methods like PID, pole placement, and Model Predictive Control (MPC) alongside A-star (A*) pathfinding algorithms.
- Implemented an Extended Kalman Filter for SLAM, enabling precise vehicle localization for navigation in GPS-limited environments.
- Designed Model Reference Adaptive Control (MRAC) and MPC strategies for a drone with impaired motor function, demonstrating proficiency in developing robust and adaptive control systems for fault-tolerant operations.

Computer Vision Group Project Pittsburgh, PA
Computer Vision for Engineers Course, Carnegie Mellon University October 2023 – December 2023

- Spearheaded the development of a computer vision program using Python and OpenCV, specifically tailored for augmented reality (AR) applications involving dynamic object tracking.
- Employed Intel RealSense for depth data acquisition and integrated TensorFlow's MoveNet for accurate pose estimation, applying perspective projection techniques for precise spatial alignment in AR environments.

C/C++ Game Development Project Pittsburgh, PA
Engineering Computation Course, Carnegie Mellon University October 2023

- Developed an interactive 2D game using C/C++, emphasizing efficient code organization and robust functionality.
- Implemented OpenGL for graphical rendering, achieving a dynamic and realistic sand particle simulation.
- Incorporated music and PNG encoder libraries to seamlessly integrate audio and image elements, significantly enhancing user interaction and visual appeal.

Capstone Design Project Washington, DC
George Washington University August 2021 – May 2023

- Led the development of SecuFoam, an IoT-based public health project showcasing multidisciplinary design and engineering skills.
- Utilized CAD software to design and create physical prototypes, demonstrating proficiency in hands-on engineering and materialization of concepts.
- Conducted extensive market and business model research, contributing to the project's commercial viability and competitiveness in technology entrepreneurship contests.
- Implemented effective project management strategies, ensuring timely completion of milestones.

LEADERSHIP

Section Chair, GWU American Society of Mechanical Engineers (ASME) – Washington, DC September 2021 – May 2023

- Successfully revitalized and led the ASME student chapter, significantly enhancing its presence and influence within the university community.
- Spearheaded various initiatives and events that successfully increased student engagement and participation, resulting in a 300% increase in membership.
- Developed and maintained strong relationships with faculty and peers, enhancing the chapter's networking opportunities and professional development offerings.