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Samuel Zapolsky

Robotics & A.I.

Experience

Graduate Research Assistant | **Sep 2012 – *present***
The George Washington University
Positronics Lab (Planning, Optimization & Simulation for Robotics)
Washington, DC
Advisor: Evan Drumwright

Visiting Researcher | **July 2012 – Sep 2012**
Italian Institute of Technology: Department of Advanced Robotics
Dynamic Legged Systems Lab
Genoa, Italy
Advisors: Jonas Buchli & Claudio Semini

Education

Graduate | **Sep 2012 – *present***
The George Washington University
The School of Engineering and Applied Sciences
Ph.D. Computer Science: Robotics and A.I.
Advisor: Evan Drumwright

Undergraduate | **Aug 2008 – May 2012**
The George Washington University
The Elliott School of International Affairs
B.A. International Affairs & Economics (B.S. requirements)
Minor in Computer Science & Concentration in International Economics

Software Developed

Created
- Pacer: Modular, Real-Time Robot Planning and Control Software (C++)

Contributed
- Moby: Multi-Body Dynamics Simulator & Numerical Optimization Library (C++)
- Ravelin: Linear Algebra & Rigid Multi-Body Dynamics Library (C++)

Skills

Languages
- Spanish – speaking (limited), reading (minimum) & writing (minimum)*
  **Proficiencies defined by the Department of State*

Programs
- ROS & Gazebo
- GDB & LLDB
- MATLAB

Programming, Scripting & Other Languages
- C/C++
- Python
- Bash
- Java
- Perl
- LaTeX

Key Publications

Particle Traces for Detecting Divergent Robot Behavior
Samuel Zapolsky and Evan M. Drumwright
IEEE-RAS International Conference on Humanoid Robots (Humanoids)
Cancun, Mexico, Nov 2016. [PDF]

Interactive, Iterative Robot Design
Bradley Canaday, Samuel Zapolsky, Evan M. Drumwright
in review *IEEE International Conference on Robotics and Automation (ICRA)*
Singapore, May 2017. [PDF]

Inverse Dynamics with Rigid Contact and Friction
Samuel Zapolsky and Evan M. Drumwright
Auton Robot (2016). doi:10.1007/s10514-016-9608-7 [PDF]

Adaptive Integration for Controlling Speed vs. Accuracy in Multi-Rigid Body Simulation
Samuel Zapolsky and Evan M. Drumwright
The 2015 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2015)
Hamburg, Germany, Sep 2015. [PDF]