

Paul Soldate

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EXPERIENCE	University of Washington		Dept. of Mechanical Engineering
	Doctoral Student		In Progress
	<ul style="list-style-type: none">Pursuing doctoral studies in precision instrumentation, optimal control, and model-based prediction		
	Boeing		Boeing Defense, Space, & Security
	Systems Engineer		2022 – 2024
	<ul style="list-style-type: none">Developed simulations and testing requirements to collect, process, and analyze real-time data from electro-optical/IR systemsCollaborated with multi-disciplinary teams to develop simulations and deliver data-driven solutions to customersIdentified knowledge gaps and assessed product functionalityPresented results to stakeholders, developed white papers, and met with customers to assess product requirementsAwards: Engineering Excellence, 2023		
	Lockheed Martin		Rotary & Mission Systems
	Systems Engineer		2019 – 2021
	<ul style="list-style-type: none">Developed models and simulations to optimize electro-optical system performancePerformed product lifecycle and root-cause analysis to assess product limitationsPresented results to stakeholders, developed white papers, and met with customers to assess product performance		
	Harvard University		Division of Applied Physics, School of Engineering & Applied Science
Research Fellow		2017 – 2018	
<ul style="list-style-type: none">Developed model-based methods to predict the behavior of patented electrohydrodynamic manufacturing processes [2]Presented findings to faculty/researchers and published original research in peer reviewed journals			
Cornell University		Dept. of Fiber Science, Nano-Manufacturing Laboratory	
Researcher		2013 – 2017	
<ul style="list-style-type: none">Patented new manufacturing processes [1] and developed instrumentation, simulations, and control systems for the Intel Strategic Research Alliances (ISRA) programDesigned integrated systems for materials testing, rheological measurements, and thermal analysis [3]Presented findings at technical conferences, and published results in peer reviewed journals			
California Institute of Technology		Dept. of Applied Physics & Materials Science, Space Radiation Laboratory	
Research Technician		2009 – 2011	
<ul style="list-style-type: none">Developed computational tools to process and analyze data from space-based telescopesDeveloped and tested high-voltage hardware for research in x-ray optics and plasma physics			
Lawrence Berkeley National Laboratory		The Advanced Light Source, X-Ray Optics Laboratory	
Research Assistant		2008	
<ul style="list-style-type: none">Developed calibration methods for the modulation transfer function of surface profilometers for research in optical metrologyPresented findings to faculty/researchers and published original research in peer reviewed journals [4][5]			
EDUCATION	University of Washington	Mechanical Engineering	Ph.D. (In Progress)
	University of Washington	Entrepreneurship	Certificate (In Progress)
	Cornell University	Applied Physics	M.Eng.
	Rensselaer Polytechnic Institute	Physics	B.S.
IP & PUBLICATIONS	1. <i>Methods and Systems for Electrospinning</i> , PCT/US2018/042354, January, 2019.		
	2. [Editor’s Pick] <i>Journal of Applied Physics</i> , Volume 125, Issue 5, Controlled Deposition of Electrospun Nanofibers by Electrohydrodynamic Deflection, February, 2019.		
	3. <i>Springer, Advances in Intelligent Systems and Computing</i> , Development of an Automated Pressure Sensitive Thermesthesiometer..., 2018.		
	4. <i>SPIE Volume 7448, Advances in XRay/EUV Optics and Components</i> , IV, ISBN: 9780819477385, Binary Pseudo-random Gratings and Arrays for Calibration of Modulation Transfer Function of Surface Profilometers: Recent Developments, 2009.		
	5. <i>Journal of Vacuum Science and Technology, Microelectronics and Nanometer Sci. B</i> , Volume 27, Issue 6, pp. 3213-3219, Development of Pseudo-random Binary Arrays for Calibration of Surface Profile Metrology Tools, 2009.		
COMPUTATION	Git, Python, C, C++, MATLAB, Linux, LabVIEW, COMSOL, ANSYS, Arduino, CAD, LaTeX, JIRA, Confluence, DOORS		