Paul Soldate

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EXPERIENCE		
	University of Washington	**Dept. of Mechanical Engineering**
	Doctoral Student	**In Progress**

- Pursuing doctoral studies in precision instrumentation, optimal control, and model-based prediction

	Boeing	**Boeing Defense, Space, & Security**
	Systems Engineer	**2022 - 2024**

- Developed simulations and testing requirements to collect, process, and analyze real-time data from optical systems
- Collaborated with multi-disciplinary teams to develop simulations and deliver data-driven solutions to customers
- Identified knowledge gaps and assessed product functionality
- Presented results to stakeholders, developed white papers, and met with customers to assess product requirements
- Awards: Engineering Excellence, 2023

	Lockheed Martin	**Rotary & Mission Systems**
	Systems Engineer	**2019 – 2021**

- Developed models and simulations to optimize electro-optical system performance
- Performed product lifecycle and root-cause analysis to assess product limitations
- Presented 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**

- Developed model-based prediction methods for 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**

- *Patented new manufacturing processes [1] and* developed instrumentation, simulations, and control systems for the Intel Strategic Research Alliances (ISRA) program
- *Designed integrated systems for materials testing, rheological measurements, and thermal analysis* [3]
- *Pr*esented 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**

- *Developed computational tools to process and analyze data from space-based telescopes*
- *Developed 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**

- Developed calibration methods for the modulation transfer function of surface profilometers using optical metrology
- Presented 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. **Methods and Systems for Electrospinning,** *PCT/US2018/042354, January, 2019.*
	2. **[Editor's Pick] Journal of Applied Physics,** *Volume 125, Issue 5, Controlled Deposition of Electrospun Nanofibers by Elecrohydrodynamic Deflection, February, 2019.*
	3. **Springer, Advances in Intelligent Systems and Computing,** *Development of an Automated Pressure Sensitive Thermesthesiometer…, 2018.*
	4. **SPIE Volume 7448, Advances in XRay/EUV Optics and Components**, *IV, ISBN: 9780819477385, Binary Pseudo-random Gratings and Arrays for Calibration of Modulation Transfer Function of Surface Profilometers: Recent Developments, 2009.*
	5. **Journal of Vacuum Science and Technology, Microelectronics and Nanometer Sci. B**, *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