

<b>Experience</b>	<b>Head of Autonomy Technology</b>	2016 - Present
	Northrop Grumman Corporation, San Diego, CA and various sites	
	<ul style="list-style-type: none"> <li>• Head of Autonomy Technology portfolio, accountable for autonomous systems research, development, and technology transfer into major weapon systems.</li> <li>• Head of Aerospace Sector Software, accountable for &gt;\$500M of annual business, delivering across a large diverse portfolio of manned aircraft (including B-2), unmanned aircraft (including X-47B), spacecraft (including James Webb Space Telescope), Directed Energy Laser systems, Missile Systems (including Ground Based Strategic Deterrent), and many research engagements (including DARPA).</li> </ul>	
	<b>Senior Manager of Software Development</b>	2014 - 2016
	Amazon, AWS EC2 Networking and Prime Air UAV teams, Seattle, WA	
	<ul style="list-style-type: none"> <li>• Operated the AWS EC2 networking control plane while simplifying 6 overlapping distributed systems into a simpler set of shared services, avoiding \$64M in costs.</li> <li>• Leader of Prime Air's delivery drone software platform effort.</li> </ul>	
	<b>Senior Director of Product Development</b>	2012 - 2014
	F5 Networks, Seattle and Bellevue, WA	
	<ul style="list-style-type: none"> <li>• Established and managed F5 Network's Bellevue engineering center.</li> <li>• Created and launched a new cloud security management product line.</li> </ul>	
	<b>Director of Engineering</b>	2010 - 2012
	Microsoft Applied Robotics Solutions, Redmond, WA	
	<ul style="list-style-type: none"> <li>• Designed, developed, and low rate manufacturing of a consumer mobile robot.</li> </ul>	
	<b>Director of Development and Operations</b>	2006 - 2010
	Microsoft Windows Azure, Redmond, WA	
	<ul style="list-style-type: none"> <li>• Founding member of the cloud effort at Microsoft and scaled to global presence.</li> <li>• Established Microsoft's Cloud Management Team and Cloud Security Strategy.</li> </ul>	
	<b>Development Manager</b>	2004 - 2006
	Microsoft Windows Core OS Division, Redmond, WA	
	<ul style="list-style-type: none"> <li>• Classified the root causes behind past security, updated static analysis tools, made 250,000 code changes to Windows, eliminating &gt;50% of root causes.</li> <li>• Awarded Microsoft Chairman's Award for Engineering Excellence for this impact.</li> </ul>	
	<b>Research Software Design Engineering Lead</b>	1999 - 2004
	Microsoft Programmer Productivity Research Center, Redmond, WA	
	<ul style="list-style-type: none"> <li>• Pioneered hung app diagnostics; fixing &gt;50% of the volume of hangs in Office.</li> <li>• Integrated static code analysis service into Windows engineering daily life-cycle.</li> </ul>	
	<b>Research Software Design Engineer</b>	1996 - 1998
	Quest Integrated, Inc., Seattle, WA	
	<ul style="list-style-type: none"> <li>• Developed the world's leading thermal analysis microscope.</li> </ul>	
	<b>Education</b>	
	<b>MSEE, Electrical Engineering</b> , Computer Vision Based Inspection Systems	1997
	University of Washington, Seattle, WA	
	<b>BE, Electrical Engineering and Biomedical Engineering</b>	1995
	Vanderbilt University, Nashville, TN	
	<b>Clearance</b>	<b>TS/SCI</b>