

## Jared G. Wood

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CONTACT INFORMATION	linkedin.com/in/jaredgwood jaredgw@gmail.com 510-610-7029	
QUALIFICATIONS	<ul style="list-style-type: none"><li>• Research and software development enabling autonomous vehicle intelligence.</li><li>• Built signal processing software for time-of-flight sensor data.</li><li>• Built localization software using depth scans.</li><li>• Built perception software for object detection.</li><li>• Built motion planning software for obstacle avoidance.</li></ul>	
EDUCATION	<b>University of California–Berkeley</b> <i>PhD Engineering (controls, artificial intelligence, machine learning)</i>	<b>Dec 2011</b>
	<b>University of California–Berkeley</b> <i>MS Engineering (controls, signal processing)</i>	<b>May 2008</b>
	<b>University of Utah</b> <i>BS Mechanical Engineering (mathematics minor)</i>	<b>May 2006</b>
WORK EXPERIENCE	<b>Hadal - Oakland, California</b> <i>Research &amp; Software Development</i> <ul style="list-style-type: none"><li>• Autonomous deep sea vehicle navigation.</li><li>• Built software to process time-of-flight range/doppler sensor data.</li><li>• Built software to detect sea floor.</li><li>• Built software for vehicle to safely follow sea floor while avoiding obstacles.</li><li>• Building software to detect moving obstacles.</li><li>• Implemented in C++, some prototyping in Python.</li></ul>	<b>Feb 2014 to current</b>
	<b>Automa Aurora - Berkeley, California</b> <i>Software Development</i> <ul style="list-style-type: none"><li>• Semi-autonomous ground vehicle routing service.</li><li>• Built distributed software for route optimization.</li><li>• Built software for vehicle-server communication.</li><li>• Implemented in Java, Python.</li></ul>	<b>Jun 2012 to Oct 2013</b>
	<b>United Technologies Research Center at Berkeley</b> <i>Research &amp; Software Development</i> <ul style="list-style-type: none"><li>• Autonomous helicopter perception.</li><li>• Built software for particle filter object track estimation/prediction.</li><li>• Implemented in C++.</li></ul>	<b>Sep 2011 to Apr 2012</b>
	<b>Vehicle Dynamics Lab - UC Berkeley</b> <i>Research &amp; Software Development</i> <ul style="list-style-type: none"><li>• Autonomous aircraft ground object tracking.</li><li>• Built software for object detection from camera images.</li><li>• Built software for object tracking and future prediction.</li><li>• Built software for motion planning to follow predicted object track.</li><li>• Implemented in C++.</li></ul>	<b>Aug 2007 to Sep 2011</b>
	<b>Lawrence-Berkeley National Lab</b> <i>Research &amp; Software Development</i> <ul style="list-style-type: none"><li>• Distributed wireless sensor network.</li><li>• Built software for mesh network sensor sampling.</li><li>• Implemented in C, Java.</li></ul>	<b>May 2006 to Aug 2007</b>

## PUBLICATIONS

- Wood, J.G., and J.K. Hedrick. Partition Learning for Multiagent Planning. *Journal of Robotics*. Volume 2012, Article ID 590479. 2012.
- Wood, J.G. Time Evolving Space Partitioning for Search and Tracking of an Unknown Number of Targets by a Team of Heterogeneous Autonomous Agents. Dissertation, University of California, Berkeley. 2011.
- Wood, J.G., and J.K. Hedrick. Multi-agent Path Planning for an Unknown Number of Targets over Dynamic Space Partitions. In: *Proceedings of the 50th IEEE Conference on Decision and Control and European Control Conference (CDC-ECC 2011)*, December 12–15, 2011.
- Wood, J.G., and J.K. Hedrick. Space Partitioning and Classification for Multi-target Search and Tracking by Heterogeneous Unmanned Aerial System Teams. In: *Proceedings of the 2011 AIAA Infotech@Aerospace Conference*, March 28, 2011.
- Wood, J.G., B. Kehoe, and J.K. Hedrick. Target Estimate PDF-based Optimal Path Planning Algorithm with Application to UAV Systems. In: *Proceedings of the 2010 ASME Dynamic Systems and Control Conference*, September 13, 2010.
- Wood, J.G. Reliable Wireless Sensor Network for Data Acquisition. Thesis, University of California, Berkeley. 2008.
- Wood, J.G., and S. Mascaro. Human Finger Muscle-Tendon System for Robotics. In: *Utah Undergraduate Research Journal*, 6, pp. 75, 112. 2006.
- Garvey, J., B. Kehoe, B. Basso, M. Godwin, J. Wood, J. Love, S.-Y. Liu, Z. Kim, S. Jackson, Y. Fallah, T. Fu, R. Sengupta, and J.K. Hedrick. An Autonomous Unmanned Aerial Vehicle System for Sensing and Tracking. In: *Proceedings of the 2011 AIAA Infotech@Aerospace Conference*, March 28, 2011.
- Sengupta, R., J. Connors, B. Kehoe, Z. Kim, T. Kuhn, and J. Wood. Final Report – Autonomous Search and Rescue with ScanEagle. Prepared for Evergreen Unmanned Systems and Shell International Exploration and Production Inc., September, 2010.