

Jared G. Wood

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

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.