

# Shannon R. C. Syrstad | Curriculum Vitae

Utah Water Research Lab | Utah State University | 1600 Canyon Road | Logan, UT

435.797.1184 | shannon.syrstad@usu.edu

## Education

Masters of Science in Water Resources Engineering – Logan, UT	2012
Bachelors of Science (double) in Environmental Management and Public Management, Minor in Spanish– Bloomington, IN	1999

## Professional Summary

Expert experience in Agisoft PhotoScan Professional, EnsoMosaic Mosaic Mill photogrammetry software  
Over 15 years of professional experience in softcopy photogrammetry and GIS  
Over 8 years of professional experience in remote sensing  
Graduate coursework and emphasis in water management, remote sensing, and hydrology  
Excellent interpersonal, communication and project management skills

## Publications/Papers

B. Zaman, Jensen, A., <b>Clemens, S. R.</b> , and McKee, M., “Retrieval of Spectral Reflectance of High Resolution Multispectral Imagery Acquired with an Autonomous Unmanned Aerial Vehicle: AggieAir™”, <i>American Society for Photogrammetry and Remote Sensing</i> , vol. 80, no. 12, pp. 1139-1150, 2014.	2014
<b>S. Clemens</b> , “Procedures for Correcting Digital Camera Imagery Acquired by the AggieAir Remote Sensing Platform”, Utah State University, 2012.	2012
Barfuss, S.L.; Jensen, A.; <b>Clemens, S.</b> Evaluation and Development of Unmanned Aircraft (UAV) for UDOT Needs; Utah Department of Transportation: Salt Lake City, UT, USA, 2012.	2012
A. M. Jensen, Morgan, D., <b>Clemens, S.</b> , Chen, Y. Q., and Hardy, T., “Using Multiple Open-Source Low-Cost Unmanned Aerial Vehicles (UAV) for 3D Photogrammetry and Distributed Wind Measurement”, in <i>Proceedings of the 2009 ASME/IEEE International Design Engineering Technical Conferences &amp; Computers and Information in Engineering Conference</i> , 2009.	2009
Hardy, T.B., <b>S. Clemens</b> , M. Winkelaar, L. Kent, R.C. Addley. 2006. Riparian Community and Aquatic Habitat Classification for the Shasta River. Final Report for US Fish and Wildlife Service.	2006
Addley, R.C., A. Rehm, R. Fridell, T.B. Hardy, <b>S. Clemens</b> and M. Winkelaar. 2005. Temperature and synoptic flow monitoring of the Virgin River watershed. Institute of Natural Systems Engineering, Utah State University, Utah Water Research Laboratory, Logan Utah.	2005
Addley, R.C., B. Bradford, M. Combes, <b>S. Clemens</b> , M. Winkelaar and T.B. Hardy. 2005. Two dimensional habitat modeling: Carmen-Smith hydroelectric Project (FERC No. 2242). Institute of Natural Systems Engineering, Utah State University, Utah Water Research Laboratory, Logan Utah.	2005
Gardberg, J., R.C. Addley, <b>S. Clemens</b> , T.B. Hardy and M. Winkelaar. 2004. Temperature and Synoptic Flow Monitoring of the Virgin River Watershed. Institute for Natural Systems Engineering, Utah Water Research Lab, Utah State University, Logan, UT 84322-8200.	2004

## Related Experiences

Research Engineer II – *AggieAir Service Center, Logan, UT*

2013-Present

Photogrammetrist for AggieAir; generate 3-dimensional terrain models, stereopairs and orthomosaics from aerial photos; prepare data for remote sensing other calibration. Expertise include GIS, EnsoMosaic, Agisoft Photoscan Professional, ERDAS Imagine.

Research Engineer I – *AggieAir Service Center, Logan, UT*

2007-2013

Photogrammetrist for AggieAir; ground control station operator; generate 3-dimensional terrain models, stereopairs and orthomosaics from aerial photos; prepare data for hydraulic and habitat modeling using GIS. Field data collection lead for macroinvertebrate and instream flow tasks.

Research Assistant – *Institute for Natural Systems Engineering, Logan, UT*

2005-2006

Photogrammetrist for INSE; generate 3-dimensional terrain models, stereopairs and orthomosaics from aerial photos; prepare data for hydraulic and habitat modeling using GIS. Expertise include GIS, OrthoMax, ERDAS Imagine.

Technician - *Institute for Natural Systems Engineering, Logan, UT*

1999-2005

Photogrammetrist technician, data entry, GIS technician

GIS Intern - *Ashley National Forest, Duchesne, UT*

1999

Assisted mapping ranger with GIS related tasks, inventorying historical campsites in a photo/spatial database, assisted with wilderness ranger and trail maintenance tasks

GIS Intern - *City of Bloomington, Bloomington, IN*

1999

Part of team which updated the city's land use database, involve field data collection and entry in Oracle

## Affiliations

ASPRS, American Society for Photogrammetry and Remote Sensing