

S. Andrew Sheppard

Curriculum Vitae

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Education

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| 2017 | Ph.D., Computer Science , University of Minnesota, Minneapolis, MN
<i>Advisor: Loren Terveen</i>
<i>Thesis: Managing Data Quality in Observational Citizen Science</i> |
| 2010 | M.S., Computer Science , University of Minnesota, Minneapolis, MN (awarded 2017)
<i>Related Field: Japanese</i> |
| 2005 | B.S., Information Technology Management , University of Minnesota, Crookston, MN
<i>With High Distinction</i>
<i>Minor: Business Management</i> |

Experience

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| 2018-present | Senior Software Engineer , Houston Engineering, Inc., Maple Grove, MN.
<i>Role: Software technical lead and solution architect for agricultural and water quality web applications.</i> |
| 2010-2017 | GIS/Web Developer , Houston Engineering, Inc., Maple Grove, MN.
<i>Role: Individual developer on mobile geographic applications for water resource management.</i> |
| 2008-2010 | Research Assistant , GroupLens Research, University of Minnesota, Minneapolis, MN.
<i>Role: Part of a research team that implemented and studied the Cyclopath geowiki.</i> |
| 2005-2008 | Information Technology Professional , University of Minnesota RSDP, St. Paul and Crookston, MN.
<i>Role: Built websites for water quality citizen science and local food knowledge crowdsourcing.</i> |

Publications

Sheppard, S. A., Turner, J., Thebault-Spieker, J., Zhu, H., and Terveen, L. Never Too Old, Cold or Dry to Watch the Sky: A Survival Analysis of Citizen Science Volunteerism. In *Proceedings of the ACM on Human-Computer Interaction, Volume 1, CSCW*. December 2017.

Sheppard, S. A., Wiggins, A., and Terveen, L. Capturing Quality: Retaining provenance for curated volunteer monitoring data. In *Proceedings of the 17th ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW 2014)*. ACM. February 2014.

Sheppard, S. A. wq: a modular framework for collecting, storing, and utilizing experiential VGI. In *Proceedings of the 1st ACM SIGSPATIAL International Workshop on Crowdsourced and Volunteered Geographic Information (GEOCROWD '12)*. ACM. November 2012.

Sheppard, S. A. and Terveen, L. Quality is a Verb: The operationalization of data quality in a citizen science community. In *Proceedings of the 7th International Symposium on Wikis and Open Collaboration (Wikisym '11)*. ACM. October 2011.

Torre, F., **Sheppard, S. A.**, Priedhorsky, R., and Terveen, L. bumpy, caution with merging: an exploration of tagging in a geowiki. In *Proceedings of the 16th ACM international conference on Supporting group work (GROUP '10)*. ACM. November 2010.

Open Source Software

2011-present	wq Framework • https://github.com/wq <i>Integrated Python + JavaScript frameworks for geographic data collection and mobile crowdsourcing.</i>
2014-present	Django REST Pandas • https://github.com/wq/django-rest-pandas <i>Python tool to create REST APIs for database- or file-backed Pandas DataFrames.</i>
2017	TensorFlow plugin for PhoneGap/Cordova https://github.com/heigeo/cordova-plugin-tensorflow <i>JavaScript API bridge for TensorFlow inference library (Java & Objective-C)</i>
2013-2017	Climata • https://github.com/heigeo/climata <i>Python client to load climate time series data from several national databases.</i>
2014-2017	Leaflet WMS Plugin • https://github.com/heigeo/leaflet.wms <i>Enhanced Web Mapping Service support for Leaflet JavaScript library.</i>

Service

Reviewed papers and notes for IUI, CHI, CSCW, and the Citizen Science Journal.

Student volunteer at MobileHCI 2012 and CSCW 2013.