Kim H. Sundeen

GIS Developer and Project Coordinator

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SUMMARY

Kim has 10 years of extensive experience planning and implementing progressive GIS solutions using a variety of software programs including ArcGIS Enterprise and QGIS. Kim's background includes database management (SQL Server, Oracle, Postgresql) and customizing desktop, mobile, and web GIS solutions using configuration and programming (JavaScript, Python, ArcGIS Web APIs). She has deep technical and industry knowledge in utility and engineering practices, remote sensing, environmental sciences, mobile applications, and government services. She has managed numerous internal data collections applications for field surveys, asset management systems, data migrations, and integrations between IT and GIS systems. Kim serves on and has served on professional GIS boards and committees (Fond du Lac Geospatial Technologies Advisory Committee, WI Land Information Association, Tribal GIS), leads GIS workshops, and is active in the GIS community.

PROFESSIONAL EXPERIENCE

RAMTeCH Software Solutions, Inc.
GIS Analyst/Developer, Feb 2017 - Current

GIS & Facility Operations, MN Power
GIS Programmer Analyst, 2016 - 2017

City of Duluth, Engineering Division
GIS Specialist, 2015 - 2016

Bad River Tribe, Natural Resources Dept.
GIS Specialist, 2012 - 2015

School of Nursing, University of WI, Madison
GIS Project Assistant, 2010 - 2012

International Crane Foundation
GIS Field Ecology Researcher, 2007 - 2010

PROJECT EXPERIENCE

Data Migration for New Utility Network: Collaborated with agile team for customizing python-plsql database migration solutions to handle ETL from 5 source databases to one unified model. Managed multiple Esri alpha and beta software releases to accommodate changes in the new Utility Network model.

Web Map App Development & Implementation: Planned and developed custom ArcGIS web mapping applications for Bad River Tribal Ownership and Lease Viewer (ArcGIS Flex Viewer and SDE database), City of Duluth Street Update Viewer (ArcGIS Web App Builder and SDE database), and Electric Utility Asset Identification (ArcGIS JavaScript API and Web App Builder Developer's and Edition and SDE database), Biking Route Finder (Google Maps API and Postgresql database).

Full Cycle Project Development & Implementation: Coordinated GIS user needs assessment & implementation plans for 19 projects for software development, database development and improvements, training, and website enhancements for City of Duluth IT Dept. & Public Works & Utilities Dept.

Training: Taught introductory Python, JavaScript, GPS & GIS sessions for small group workshops on: (1) using new mapping & GPS programs (2) testing software including ArcGIS Desktop & opensource QGIS, (3) setting up development environments for Python & JavaScript, (4) process for updating website front ends, & (5) GIS user needs assessments.

Staff Supervision: Oversaw and trained student GIS technicians on GIS data entry procedures for UW Nursing School mapping projects and LTE staff for short-term land ownership projects with the Bad River Tribe. Managed remote teams for software development and database configuration using scrum project management with RAMTeCH.

Grant Writing: Awarded several grants to fund M.Sc. research and provide professional development: **$10,000** from the *Animal Welfare Institute (2010)*; Additional **$1,025** from research organizations for mapping (2010-2011); **$5,200** from *Esri for ArcMap online training through the Conservation Grant Program (2012);* **$127,000** from *the Federal Emergency Management Agency Pre-Disaster Mitigation Program.*

GIS Data Security: Implemented new ArcGIS Server security protocol for publishing GIS services online; Researched and re-wrote external and internal data-sharing agreements and policies for the Bad River Tribe.

EDUCATION AND PROFESSIONAL DEVELOPMENT

Master of Science: Applied Computer Science, (Anticipated Completion: 2020)
University of West Georgia, College of Science and Mathematics

Graduate Studies in GIS Web Map Programming (Master of Science student)
Graduate Certificate: Geographic Information Systems, 2012
Master of Science: Conservation Biology and Sustainable Development, 2011
Bachelor of Science: Wildlife Ecology, Certificate: Environmental Studies, 2006
University of Wisconsin, Madison, WI

Certification
Certified Geographic Information Systems Professional (GISP) #84940

AREAS OF EXPERTISE
- Database Design/Structures *(Microsoft SQL Server, 12c Oracle, PostgreSQL, MySQL, MS Access, Excel)*
- Server Side/Desktop Programming *(Python, C#, SQL/PLSQL)*
- Mapping APIs *(ArcGIS for JavaScript, Leaflet, Mapbox, Google Maps, OpenLayers)*
- Web Development *(HTML, CSS, JavaScript frameworks)*
- GIS/GPS *(ArcGIS 9.3-10.3.1., ArcGIS Pro 2.x, QGIS 1.6-2.16, Google Earth, ArcPad 7.1 & 10.2, Terrasync 5.6, & Pathfinder Office 5.4)*
- Project Management/Agile Scrum
- Web Content Management Systems *(Druple, Joomla, Wordpress)*
- Statistics and Remote Sensing
- Code Versioning *(Github, Hg Mercurial, TortoiseSVN)*
- Presentation and Graphic Design *(workshops, training, presentations, lectures, and posters)*

SELECTED PUBLICATIONS, WORKSHOPS, AND PRESENTATIONS
- Sundeen, K.H. (2017). "Exploring the Utility Network in ArcGIS Pro." Minnesota GIS/LIS Pre-Conference Workshop, October.
- Sundeen, K.H. (2017). "Esri's Utility Pipeline Data Model (UPDM) and Utility Network in Network Management Basics." Utility Industry Forum Posting, September.
- Sundeen, K.H., et al. (2017). Early Adopters of the Gas Utility Network: Are You the Tortoise or the Hare? Esri's GeoConX Conference, September.
- Sundeen, K.H. (2016). "Designing a Long-Term GIS Vision & Implementation Plan." Minnesota GIS/LIS Pre-Conference Workshop, October.
- Sundeen, K.H. (2016). "Simplifying Metadata Editing for the Non-Programmer." Northern MN GIS User Group, April.
- Sundeen, K.H. (2015). "Bringing Free & Open Source GIS to India Country." Wisconsin Land Information Association, February.
- Severtson, D.J. and Sundeen-Ness, K.H. (2014) "Accuracy of residents' perceived home locations on an environmental risk map." Applied GIS: June, Vol 10 (2).