

Education

MS, GIS and Web Map Programming, University of Wisconsin-Madison, 2018-Pres.

Graduate GIS Certificate, UW-Madison, Geography Dept. 2015-2016

BA, Classics with Honors; **BA**, Classical Humanities; **Certificate**, Archaeology, UW-Madison, 2006 - 2010

Employment

Portland General Electric, Portland, OR

GIS Analyst II

Nov. 2018-Present

Support multiple lines of business within PGE with knowledge of ESRI ArcGIS 10.2, Python 2.7, Schneider ArcFM, and SQL. Create Python scripts, tools, and add-ins to automate and expedite mapping and geoprocessing tasks. Design and create spatial maps and products. Develop and maintain applications in ArcGIS Online and Portal.

GIS Specialist III

Mar. 2018-Oct. 2018

Develop and administer department cartographic standards. Perform geo-data quality control tasks. Optimize approaches and procedures for data management, workflow support, and product/service delivery with focus on cost savings and resource allocation. Review others' edits to enterprise geodatabase for major mapping projects to ensure they meet company data standards.

MODIS IT contracting at Portland General Electric, Portland, OR

GIS Technician III / As-built Poster

Oct. 2017-Mar. 2018

Support implementation of electrical design and utility construction work via knowledge of ArcFM and the completion of as-building, service, and non-design processes. Perform quality assurance/control checks in the enterprise geodatabase. Post as-built designs and sessions in the enterprise geodatabase. Correct spatial and attribute errors in the geometric and logical networks. Correct errors that arise from reconciling edit versions to SDE default version. Develop training materials and videos. Apply GIS Cartographic Standards to maps and products.

GIS Technician II / As-built Editor

Oct. 2016-Oct. 2017

Interpret engineering sketches and construction work orders to accurately map location and attributes of electrical infrastructure using ArcGIS 10.2 and ArcFM. Perform mapping activities associated with field corrections, fault mapping, outages, damage, corrective maintenance, and inspections. Perform research and investigations to support mapping and analysis activities. Support enterprise data integrity via manual and automated GIS editing and analysis tasks. Use aerial imagery to correct location of system-generated service wires and meters. Finalize data in versions in preparation for posting in the enterprise geodatabase.

UW-Madison School of Medicine & Public Health, Madison, WI

Associate Cartographer

Sep. 2016-Sep. 2017

Create static maps with ArcGIS 10.3 and Adobe Illustrator CC for publication in manuscript on phylogeography of *Mycobacterium tuberculosis*. Develop an interactive web map for publication with the manuscript using JavaScript,

HTML, CSS, and D3. This map includes functionality to pan, zoom, filter on several variables, reexpress multiple variables, and add different overlays.

GIS Analyst

Aug. 2015-Aug. 2016

Use ArcGIS 10.3 and Python 2.7 to perform network, proximity, and dasymetric analysis for project investigating spread of *M. tuberculosis* along ancient trade routes. Construct network of ancient trade routes focused on maritime and overland silk routes. Main analysis involved creating distance matrix for shortest distances between isolates along network of ancient trade routes for each of 554 isolate locations.

Epic Systems Corporation, Verona, WI

Project Manager & Quality Assurance/Quality Control Specialist

Oct. 2011-May 2013

In addition to responsibilities described below, oversaw 12-month installations of electronic health record systems at large hospital organizations. Assisted hospitals with system and workflow optimization and debugging after electronic health record system went live.

Quality Assurance/Quality Control Specialist

Sep. 2010-Oct. 2011

Tested medical software for client-server desktop and web applications. Wrote test plans designed to evaluate function, performance, user experience, and compatibility with various versions and systems. Led multiple user tests at local hospitals for which I created wire-frames and test scripts, conducted test with end users, and analyzed results to improve existing and future designs and functionality.

Awards

First Prize, Graduate Student Division, Barbara Petchenik Memorial Award in Cartography, 2016

Awarded to my map "The Silk Road in the 1st Century CE" for excellence in cartography and map design, including artistic and technical skill. This map is available in my portfolio.

Publications

O'Neill M., Kitchen, A., **Zarley, A.**, Aylward, W. Eldholm, V. and Pepperell C. **Lineage specific histories of *Mycobacterium tuberculosis* dispersal in Africa and Eurasia.** (2018) In preparation.

Skills

Cartography & GIS

ArcGIS
ArcFM
QGIS
ENVI

Programming

Python
ArcPy
SQL
JavaScript
D3
jQuery
Leaflet

Design

Illustrator
HTML
CSS
Photoshop