Matthew Kenny

360-319-3407
matthewkenny@gmail.com
linkedin.com/in/mattmakesmaps
https://mattmakesmaps.com

Tableau Software, Seattle, WA — *Senior Software Engineer*

2018 - 2023

- Developed two iterations of Tableau's connector to Esri ArcGIS Server, allowing users to retrieve data from public and authenticated Esri mapping servers. Technologies included Tableau's Web Data Connector (WDC) framework (V1) and Custom JDBC-Driver (V2).
- Enabled Offline Maps to be used in Tableau Server, for use in "airgapped" on-premises deployments.
- Developed automated monitoring and alerting infrastructure for external assets used in Maps Team build and test workflow. Primary technologies included AWS lambdas (Python), deployed via terraform.
- Developed automated testing suites for Maps team features including: Esri Connector, Heatmap (Density) marks, Web Mapping Service (WMS) support, Upgrade/Downgrade of Customer workbooks supporting Mapbox Maps.
- As Scrum Master, supported team alignment to overall company release calendar. Represented scrum team to Engineering leadership.
- As On Call engineer, monitored and improved dashboards, logging infrastructure, and runbooks for our globally distributed mapping services. Represented service status to Engineering leadership.
- Numerous ancillary bug fixes related to Maps Team features across Tableau's C++, Java, and JS code base.
- Patent: Zhengxiao Li, Daniel Robert Strebe, Matthew Nathaniel Kenny et al., 2023. Polygon Edge Matching With Geographic Operations. U.S. Patent 11847723-B1, filed January 28, 2022, and issued December 19, 2023.

Tableau Software, Seattle, WA — *Senior GIS Data Engineer*

2013 - 2018

- Part of the core team that launched an in-house global web mapping service, based primarily on OpenStreetMap data, for use across Tableau's platform. Key challenges included automating ingestion and processing of numerous global-scale datasets, cartographic styling, and label/border localization into a central PostGIS backend.
- Developed Python data processing utilities to combine commercial, open source, and public spatial datasets into a uniform format for deployment in Tableau's basemap and geocoder.
- Performed quality analyses on commercial, crowd sourced, and government generated spatial data for potential inclusion into Tableau's global basemap and geocoding system.
- Integrated US Census Bureau American Community Survey (ACS) datasets into Tableau's built-in, customer facing layers.

Skills

Languages: Python | Java | JS | SQL

Tech: PostgreSQL | PostGIS | Terraform | Esri ArcGIS Suite | QGIS | OpenStreetMap

Presentations (Excerpt)

State of the Map US, 2016
"From an OSM Way to a Highway Shield"

TechDiversified, 2016
"GIS and Decision Making"

WAURISA, 2013
"PntTrax: An Open Source Field Data Collection Tool"

Education

Arizona State University
MAS, Geographic Information Systems - 2009

Western Washington University
BA, Environmental Planning / GIS Minor - 2008

University of Washington
Certificate in Python Programming, 2012

Interests

Open Source Software (Geospatial) | Amateur Radio (KI7ZTH) | Woodworking | Bicycling

- Documented manual and semi-manual data processing workflows to allow for easy repeatability by new and current team members.
- Developed an automated data quality testing framework based on the Python nosetest library.
- Created lightweight web application dashboards and internal Flask APIs to allow data engineers to visually QA the quality of in-progress data updates to our main Postgres/PostGIS backend.

RIDOLFI Inc, Seattle, WA — *GIS Analyst*

2009 - 2013

- Provided software engineering expertise for Washington Department of Natural Resources' Marine Vegetation Atlas web mapping application.
- Wrote automated modeling workflows in Python to flag potentially contaminated sites in Western Washington using a combination of spatial and non-spatial data.
- GIS and database support for Tribal, State, and Federal agencies.
- Maintained an environmental chemical sampling database in Microsoft SQL Server, cataloging sampling histories for dozens of clients. Produced automated reports comparing these environmental samples to Tribal, State, and Federal environmental contamination standards.

KVRU 1057.FM Community Radio, Seattle, WA — *Volunteer*

2023 - Ongoing

- Produce a weekly specialty music show, "Rolling with the Blues" with host Charles "CT" Thompson.
- Provide technical assistance to the station with regards to software engineering and Linux system administration.

Note: References for all roles gladly provided on request.