Matthew Kenny

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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 cloud 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 cloud service dashboards, logging infrastructure, and runbooks for our globally distributed mapping services running in AWS. 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 pipelines to ingest and 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)

Skills

Languages: Python | Java | JS | SQL

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

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) | Cabinetmaking

datasets into Tableau's built-in, customer facing layers.

- 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 custom 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

- Supported numerous Tribal, State, and Federal clients with custom spatial data creation and analysis, cartographic outputs, and database creation and maintenance.
- Maintained an environmental chemical sampling database in Microsoft SQL Server, cataloging sampling histories for numerous Tribal agency clients. Produced automated reports comparing these environmental samples to Tribal, State, and Federal environmental contamination standards.
- Supported the Yakama Nation Environmental Restoration Waste Management (ERWM) program's oversight of cleanup efforts at the Hanford Nuclear Site with GIS support and analysis of chemical concentration data provided by the US Department of Energy and other partners.
- 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.
- Manual field GPS data collection and processing using Trimble hardware and software.

Northwest Indian Fisheries Commission, Mount Vernon, WA — *GIS Analyst Intern*

Summer 2008

- Supported the Salmon and Steelhead Habitat Inventory and Assessment Program (SSHIAP) with GIS data creation.
- Performed low flow stream measurements in the North Sound region using USGS streamflow monitoring equipment.
- Wrote python scripts to process sampling data.

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.