# LIZ ROTEN

I work at the intersection of planning and analysis in regional government. I specialize in geospatial analysis and visualization and have considerable experience in R package development, using aggregated location-based services (LBS) analysis to research regional parks visitors, and building interactive data visualization tools for housing, parcel, and ACS data.





#### **EDUCATION**



B.A., Geography, (Data Science, Community and Global Health)

Macalester College

St. Paul. MN



#### INDUSTRY EXPERIENCE

current 2018

#### Associate Data Scientist

Metropolitan Council

St. Paul. MN

- · Data scientist for Community Development research team and Metropolitan Transporation Services research and modeling team
- · Started as research intern



## SELECTED PROJECTS AND TALKS

Who is a local? Using aggregated cell phone location data to research regional parks visitors<sup>1</sup>

Metropolitan Council

St. Paul, MN

· Tallk and workshop for students on using aggregated location-based services (LBS) data to gain insights on regional parks visitors

#### A brief introduction to R packages and package development<sup>2</sup>

Metropolitan Council

St. Paul, MN

- · Introduction to the R package I wrote for the Metropolitan Council, <U+00A0>{councilR}.
- · I review the anatomy of an R package, highlight a few package features, and provide an overview of how to use GitHub for collaboration at the Council.

#### Greenhouse Gas Emissions from Passenger and Commercial Transportation<sup>3</sup>

Metropolitan Council

St. Paul, MN

- · Independently developed technique for estimating greenhouse gas emissions from commerical and passenger vehicles
- · Method uses novel Location-Based Services and GPS data

View this CV online with links at lizroten.info/cv

#### CONTACT



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✓ LizRoten

github.com/eroten

Ø lizroten.info

in linkedin.com/in/eroten

#### TECHNICAL SKILLS

R	
HTML	
CSS	
Adobe Illustrator	
Python	
JS	

Source code is available on github.com/eroten/cv.

Last updated on 2020-07-31.

### ₩ SELECTED DATA SCIENCE WRITING

#### • Finding the perfect sock pattern with ravelRy<sup>5</sup>

lizroten.info/blog

· Using Ravelry's API to find just the right sock pattern

#### Visualizing mental health data with ggplot2<sup>6</sup>

lizroten.info/blog

- · Visualization project using my own daily mental health data
- · Designed both static infographic and animated plots

#### Housing Density in US Cities<sup>7</sup>

lizroten.info/blog

· Examining residential zoning in Pittsburgh, Austin, and Boston

#### Fisk's 'Mississippi Meander' in R<sup>8</sup>

lizroten.info/blog

· A few maps inspired by Harold Fisk's 1944 geological investigation



- $https:/\!/ lizroten.info/talks/\!streetlight\_locality\_workshop/\!streetlight\_locality\_workshop.html$
- https://lizroten.info/talks/councilr/inst/presentations/a\_brief\_introduction/a\_brief\_introduction#1
- 3: https://rpubs.com/lizroten/metroclimate\_method\_on\_road
- 4: https://lizroten.info/blog
- 5: https://lizroten.info/blog/posts/finding-the-perfect-sock-pattern-with-ravelry/
- 6: https://lizroten.info/blog/posts/2019-08-31-emoods/
- 7: https://lizroten.info/blog/posts/housing-density-in-us-cities/
- $\textbf{8:}\ https://lizroten.info/blog/posts/2019-10-27-fisk-s-mississippi-river-meander-in-r/$

I blog about data science and visualization on my blog lizroten.info/blog.<sup>4</sup>