# Mark Roepke

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## PROFESSIONAL EXPERIENCE

December 2017 – Present 84.51° Cincinnati, OH

#### **Senior Data Scientist**

- Designing and implementing a personalized recommendation system for digital platforms
- Co-planning and co-delivering intermediate R and introductory Python data science workshops to data scientists
- Created, automated, and communicated a suite of customer-level supervised machine learning models using Apache Spark and Python
- Constructed and developed an opinionated and consistent R package ecosystem for company-wide use to assist data scientists with I/O, branded data visualization and communication, and automation with a team of data scientists

*July 2017 – December 2017* 

84.51°

Cincinnati, OH

#### **Data Scientist**

- Created, automated, and communicated a suite of customer-level supervised machine learning models using Oracle PL/SQL, R, and DataRobot
- Designed and delivered introductory R and Tidyverse workshops to 100+ data scientists
- Authored an internal company R package for use by 100+ data scientists with another data scientist
- Evaluated data science platforms like Domino and IBM Data Science Experience for company use as a team

*June* 2016 – *July* 2017

84.51°

Cincinnati, OH

## **Data Analyst**

- Inherited and maintained analytical methodology for a customer-level segmentation in SAS
- Actualized a comprehensive customer-level continuous customer preference measure using XGBoost in R
- Created, evaluated, and expanded company-branded ggplot2 theme and color palettes

*May 2015 – August 2015* 

U.S. Bancorp

Cincinnati, OH

#### **Quantitative Financial Analyst (Intern)**

- Conducted econometric time series analyses in R for financial stress testing purposes
- Identified determinants of demand and effects of policy changes for various financial products
- Developed financial statement report automation macros in VBA for branch offices

September 2014 – March 2014

Beech Acres Parenting Center

Cincinnati, OH

## **Fundraising Data Analyst (Intern)**

- Selected for volunteer project utilizing fundraising analytics for non-profit organization
- Analyzed over ten years of donation data in Stata to identify effective fundraising techniques via logistic regression

# PERSONAL PROJECTS AND OPEN-SOURCE CONTRIBUTIONS

#### flxr - github.com/markroepke/flxr

• Designed, authored, and communicated an R package to scrape basic IMDB movie data

## Personal Website - markroepke.me

• Built and currently maintaining a personal website in Jekyll to share my data science projects and portfolio

## Butler County Donut Trail app - markroepke.shinyapps.io/butler\_county\_donut\_trail

• Developed a web app to explore the Butler County Donut Trail using Shiny and leaflet R packages

### skimr - github.com/ropensci/skimr

Contributed whitespace calculation to the data exploration R package on CRAN (PR #380)

#### cattonum - github.com/bfgray3/cattonum

Contributed median encoding to the feature-encoding R package on CRAN (PR #10)

## **EDUCATION**

2018 – Present Johns Hopkins University Baltimore, MD

#### **Master of Science in Computer Science**

Concentration: Database Systems and Knowledge Management (GPA: 4.0)

Relevant Coursework: Introduction to Programming Using Java, Data Structures, Computer Organization

Future Coursework: Foundations of Algorithms, Foundations of Architecture,

Foundations of Software Engineering, Neural Networks, Natural Language Processing,

Artificial Intelligence, Advanced Machine Learning

2012 – 2016 Xavier University Cincinnati, OH

#### **Bachelor of Arts**

Major: Economics; Concentration: Mathematics (GPA: 3.628; Quantitative GPA: 3.86)

Minors: Statistics & Business

Relevant Projects:

- Utilized causal impact modeling to estimate economic impact of minor professional ice hockey
- Built gravity-influenced migration model to test the political dissimilarity hypothesis among refugees

Campus Involvement:

- President of the Xavier University Economics Association (2014-2016)
- Xavier University Alternative Breaks (2013-2015)
- New Student Manresa Orientation Group Leader (2013-2014)

## **AWARDS, SERVICE & CONFERENCES**

- Extraordinary Contribution Award The Kroger Company
  - o Individually selected from 400,000+ employees for quarterly stock award for pushing and enabling the organization's data science team to improve and embrace new technologies
- 2017 RStudio::conf Conference Attendee and Tidyverse Train-the-trainer Workshop Completion
- 2018 RStudio::conf Conference Attendee and Advanced RMarkdown Workshop Completion
- Board Member Xavier University Economics Department Board of Executive Advisors
  - o Selected to department's advisory board to assist undergraduate students with data-related projects
- Craig Menderson Memorial Award Xavier University Economics Departments
  - Awarded to a senior economics major demonstrating excellence in the classroom and outstanding leadership potential
- Xavier University Mortar Board
  - o One of eighteen students recognized for achievement in scholarship, leadership and service

## RELEVANT SKILLS

- Data Science:
  - Machine learning, recommender systems, EDA, workflow and automation
- Technologies:
  - o Excellent with R, Python, SQL
  - o Proficient with Unix, PySpark, Java, Oracle PL/SQL
  - Experience with Scala, SAS, Stata
- Teaching:
  - o Certified to teach the Tidyverse to beginner and experienced R users by RStudio
  - Experience designing and delivering introductory R and Python courses and intermediate R courses

#### REFERENCES

Available upon request