

Mark Roepke

markroepke.me • github.com/markroepke • mroepke5@gmail.com • 419-889-0724

PROFESSIONAL EXPERIENCE

June 2018 – Present

84.51°

Cincinnati, OH

Senior Data Scientist - Digital Personalization

- Designed and developed a complementary recipe search system for Kroger digital platforms utilizing gensim's Doc2Vec in Python and delivered as a service API via Flask
- Developed and deployed production-grade Shiny app to collect feedback from 50+ co-workers for recommendation systems to gather training data and baseline metrics prior to placement on digital platforms
- Co-designing a production-path blueprint to accelerate the delivery of sciences within an OKR/Agile framework
- Co-designed a personalized recipe recommendation system utilizing layered collaborative filtering and knowledge-based systems to inspire 2,000,000+ Kroger customers with new recipe ideas
- Co-developed an internal data science training philosophy to be detailed in an upcoming co-written white paper
- Co-planning and co-delivering semi-annual intermediate R and introductory Python data science workshops
- 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

June 2016 – June 2018

84.51°

Cincinnati, OH

Data Scientist - Customer Data Foundations

- Created, automated, and communicated a suite of customer-level supervised machine learning models to provide foundational Kroger customer preference data assets to 100+ data scientists and 100+ clients
- Utilized Oracle PL/SQL, R, and DataRobot and migrated to Apache Spark and Python prior to platform change
- Actualized a comprehensive customer-level continuous customer price sensitivity measure using XGBoost in R
- Designed and delivered introductory R and Tidiverse 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
- Inherited and maintained analytical methodology for a customer-level segmentation in SAS
- Created, evaluated, and expanded company-branded ggplot2 theme and color palettes

February 2019 – Present

University of Cincinnati

Cincinnati, OH

Python Instructor

- Designing, developing, and delivering data-focused Python workshops for the Center for Business Analytics

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
-

OPEN-SOURCE CONTRIBUTIONS AND PERSONAL PROJECTS

Open Source Contributions

- *flxr* - Developed an R package to scrape basic IMDB movie data
- *skimr* - Contributed whitespace calculation to EDA package on CRAN (Github PR #380) - 109,000 downloads
- *cattonum* - Added median encoding to feature-encoding package on CRAN (Github PR #10) - 4,500 downloads

Personal Projects

- *Personal website in Jekyll* - markroepke.me
- *Butler County Donut Trail Shiny app* - markroepke.shinyapps.io/butler_county_donut_trail

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, Foundations of Software Engineering

Future Coursework: Foundations of Algorithms, Foundations of Architecture, 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
 - 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
 - 2018 RStudio::conf Conference Attendee and Tidyverse Train-the-trainer Workshop Completion
 - 2019 RStudio::conf Conference Attendee and Advanced RMarkdown Workshop Completion
 - Board Member - Xavier University Economics Department Board of Executive Advisors
 - 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
 - One of eighteen students recognized for achievement in scholarship, leadership and service
-

RELEVANT SKILLS

- *Data Science:*
 - Supervised machine learning, recommender systems, natural language processing, EDA, production workflow and automation
 - *Technologies:*
 - Excellent with R, Python, SQL
 - Proficient with GCP, Unix, PySpark, Java, Oracle PL/SQL
 - Experience with AWS, Scala, SAS, Stata
 - *Teaching:*
 - Certified to teach the Tidyverse to beginner and experienced R users by RStudio
 - Experience designing and delivering introductory and intermediate R and Python courses for corporate and university settings
-

REFERENCES

Available upon request