# Samuel D. Pekofsky

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# **EDUCATION**

# University of Wisconsin-Madison – Dean's List

Madison, WI

Bachelor of Science in Data Science, Minor in Computer Science

September 2021 - May 2025

#### Experience

# Package Development Intern

Feb – Aug 2025

University of Wisconsin-Madison Open Source Program Office

Madison, WI

- Contributed to the open source R Package clubSandwich
- Implemented new features, wrote unit tests, and updated documentation

# Senior Camp Counselor

Jul – Aug 2023, Jun – Aug 2024

YMCA of Greater New York

New York, NY

- Worked with youth ages 4-12 to create a memorable traditional day camp experience
- Led activities, created lesson plans, and guided campers through frequent outdoor trips
- Mentored and managed junior counselors

## STEM Camp Instructor

Jul – Aug 2022

Launch Math + Science Centers

New York, NY

- Created a welcoming and engaging experience teaching STEM topics to 4-6 year-olds
- Guided campers through interactive lessons and hands-on projects
- Mentored and managed counselors in training

Office Staff

Jan 2019 – Apr 2021

 $Taxpayer Services\ NYC,\ Inc.$ 

New York, NY

- Organized client documents, answered calls, and responded to emails
- Set up and maintained technology

## Projects

#### Volcano Database | SQL, MongoDB, JSON

Nov - Dec 2024

- Designed and implemented a relational database with schemas in MySQL
- Transferred data and database structure to MongoDB, including updated JSON schemas

# Deep Learning for Classifying Images | Python, PyTorch, Git, GitHub

Mar - May 2025

- Created a hybrid CNN-transformer model for image recognition
- Trained 2 models with 6 variations, cross compared in research paper

## Twitter Sentiment & Topic Modeling | Python, Pandas, VADER, pyLDAvis, LaTeX

Oct – Dec 2024

- Processed and analyzed nearly 2 million tweets from America's 2020 election cycle
- Formatted and coauthored a research paper with prior work, process, findings, and visualizations

## **NYC Arrests Analysis** | R, R Markdown, Tidyverse

Mar - May 2024

- Cleaned, engineered, analyzed, and visualized data on over 2 million of NYPD's arrests
- Clean report with statistical analysis and visualizations

# Exploration of Student Habit Data | R, R Markdown

Apr – Apr 2025

- Processed and engineered student habit data to use for PCA
- Used creative visualizations of PCA results to observe trends

## US Migration Flows | R, R Markdown, Tidyverse, Shiny, tigris, sf, Leaflet, Git, GitHub

Feb – May 2025

- Detailed report exploring US migration data over a span of 5 years
- Includes extensive data processing, visualizations, a hosted shiny app, and meticulous analysis

## Many of my projects can be viewed and downloaded at pekofsky.github.io/projects

## TECHNICAL SKILLS

Languages: Python, JavaScript, SQL, R, Java, HTML, CSS, Julia, Mongo Developer Tools: Git, GitHub, VSCode, RStudio, Google Colab, Eclipse

Libraries & Frameworks: pandas, PyTorch, Flask, Selenium, jekyll, testthat, JUnit, ggplot2, dplyr, devtools