Samuel D. Pekofsky

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EDUCATION

University of Wisconsin-Madison

Sep 2021 – May 2025

B.S. in **Data Science** • Minor in **Computer Science** • Dean's List

Madison, WI

Experience

Package Development Intern - clubSandwich

Feb 2025 – Aug 2025

University of Wisconsin-Madison Open Source Program Office

Madison, WI

- Developed an R package by implementing new features, writing unit tests, and updating documentation
- Authored and deployed **online training material** for future interns to quickly set up their systems and learn the basics of R package development
- Presented contributions using slides, live demo, and a webpage deployed via GitHub Pages

Senior Camp Counselor

Jul 2023 – Aug 2023; Jun 2024 – Aug 2024

YMCA of Greater New York

New York, NY

• Led and collaborated in a dynamic, team-focused environment, mentoring junior counselors while fostering communication and teamwork

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 hardware and software systems

Projects

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

Mar 2025 – May 2025

- Built a hybrid CNN-Transformer model for image recognition
- Implemented an automated ETL pipeline to clean, load, and augment data before feeding it into the model
- Trained and evaluated multiple models, cross-comparing results in a research paper

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

Oct 2024 - Dec 2024

- Analyzed 2M tweets using NLP and topic modeling techniques
- Co-authored research paper documenting methods, findings, and visualizations

Volcano Database | SQL, MongoDB, JSON

Nov 2024 – Dec 2024

- Designed, implemented, and queried a relational database in MySQL
- Migrated data and structure to MongoDB, updating JSON schemas for compatibility

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

Feb 2025 - May 2025

- Developed a reproducible ETL pipeline that accessed migration data via an API
- Conducted multi-year analyses with extensive data processing, mapping, and interactive visualizations
- Produced a well-formatted report combining statistical analysis and visualizations

NYC Arrests Analysis | R, R Markdown, Tidyverse

Mar 2024 – May 2024

- Cleaned and analyzed 2M+ NYPD arrest records through feature engineering and data visualization
- Created a comprehensive report with detailed statistical analyses and visuals

Car Inventory App | Java, Git

Mar 2023 – Apr 2023

- Collaborated with a large team to design and build a Java app for organizing and searching car data
- Implemented red-black trees to enable efficient reordering and searching

Additional projects are available at pekofsky.github.io/projects

TECHNICAL SKILLS

Languages: Python, SQL, R, Java, JavaScript, HTML, CSS, Julia, MQL

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

Developer Tools: Git, GitHub, VSCode, RStudio, Google Colab, Eclipse

Platforms & Services: Google Cloud Platform, Tableau