

Andrew Follmann

Data Scientist



follperson.github.io



follperson



LinkedIn



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EXPERIENCE

THOMSON REUTERS SPECIAL SERVICES | DATA SCIENTIST

July 2020 – Current | McLean, Virginia

- Consult with internal clients about proof of concept research and analysis and customer needs.
- Lead team in novel project to identify and classify fishing vessels in the open ocean on massive images, using SAR satellite data in proof of concept.
- Built bespoke anomaly detectors using statistical mixture models, in a large web-app, served through docker and flask.
- Implement extreme classification models for hashtag prediction on Twitter.
- Lead Ethical AI working group, presenting on current topics, mitigation mechanisms, and facilitating company wide conversations.

THE OAKLEAF GROUP | SENIOR ANALYST

December 2015 – July 2019 | Bethesda, Maryland

- Developed ETL routines in Python and SQL for data cleaning, aggregation, and quality control, for use in litigation support and auditing projects.
- Lead small technology team, coordinating development schedules from management and clients.
- Built image data pipeline for mortgage loan documents enabling 180 person team and doubling of revenue YoY.

PROJECTS

SHIP IDENTIFICATION ON OPEN OCEAN | PYTHON (keras, numpy)

2021

- Lead team in DIU xView3 competition building models for ship prediction in the open ocean in gigapixel Synthetic Aperture Radar (SAR) satellite images. Ranked 7th globally, and 4th in the USA.
- Adapted Constant False Alarm Rate (CFAR) algorithm to be multi-resolution for object detection, and CNN for classification.
- Open source release forthcoming

MIXTURE MODELS | PYTHON, (scipy, numpy)

2021

- Python library for mixture models using Expectation Maximization and BIC.
- Open source release forthcoming

FOLLZAM | PYTHON (scipy, pydub)

2019

- Music fingerprinter, like Shazam. Identifies Built as a final project for statistical computing.
- Project Page: <https://github.com/follperson/follzam>

FLASK + RASPBERRY PI ALARM CLOCK | PYTHON (flask, circuit-python, pyaudio)

2018

- Raspberry Pi based alarm clock, built in python with a Flask front end.
- Slow alarm intensity raising alarm with led lights and USB speaker audio.
- Project Page: https://github.com/follperson/smart_alarm

SKILLS

PROGRAMMING

Proficient:

Python • R • SQL

Experienced:

HTML • L^AT_EX • bash

LIBRARIES/FRAMEWORKS

Proficient:

pandas • numpy • scipy • flask
scikit-learn

Experienced:

networkx • tensorflow •
statsmodels

TOOLS/PLATFORMS

Git • Docker • Linux • WSL •
Snowflake • AWS Sagemaker,
S3

EDUCATION

CARNEGIE MELLON UNIVERSITY

MASTER'S IN STATISTICS

August 2019 - May 2020 | Pittsburgh, PA

Cum. GPA: 4.24 / 4.33

Capstone: Estimating Electricity

Congestion Pricing with Regularized

Vector Autoregression

OBERLIN COLLEGE

BACHELORS OF ARTS IN

MATHEMATICAL ECONOMICS (HON.)

Aug 2011 - May 2015 | Oberlin, OH

Cum. GPA: 3.5 / 4.0

Thesis: Geographic Distribution of Urban

Public Services: A Case Study of

Sanitation and Law Enforcement

Expenditure in New York City