

Samuel Showalter

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samshowalter.github.io

SamShowalter

in samuelrshowalter

EDUCATION

PhD Student

UNIVERSITY OF CA, IRVINE

Computer Science, ML & AI

Advisor: Dr. Padhraic Smyth

GPA: 4.00 / 4.00

Aug 2020 - Present

BA in Mathematics

BA in Economics

DEPAUW UNIVERSITY

Computer Science Minor

GPA: 4.00 / 4.00

Aug 2014 - May 2018

SKILLS

PROGRAMMING

Languages

Python

R

SQL

Java

C++

Javascript

Scala

Distributed Computing

Spark

CUDA

SparkML

Machine Learning Libraries

Tensorflow

PyTorch

Scikit-Learn

OpenCV

Numpy

Pandas

Natural Language:

SpaCy

NLTK

TextBlob

Gensim

CoreNLP

AWARDS

Edward Rector Scholarship

DePauw's full-ride merit scholarship; one of 12

Prindle Technology Prize¹

Most outstanding ethical research project

Frank T. Carlton Award²

Awarded to the outstanding senior economics major

H.E.H. Greenleaf Award

Awarded to the outstanding Senior mathematics major

Randal L. Wilson Award

Junior who "has contributed most to field of economics"

EXPERIENCE

Data Science Experienced Consultant

WEST MONROE PARTNERS Aug 2018 - Aug 2020

Chicago, IL

- Lead data scientist, NLP semantic context extraction for one of world's largest banks
- Developed end-to-end ML pipeline; DAG framework; extracted semantic context from huge 20,000+ databases and filestores; Luigi, Airflow orchestration; NLP disambiguation
- Co-winner (\$300k), WMP's innovation challenge: auto-ml rapid-prototyping framework

Quantum Computing Research Fellow

NIST

May 2018 - Aug. 2018

Boulder, CO

- Highly selective national research fellowship, optimization, ML, and quantum computing
- Developed Python-based quantum state tomography software to characterize qubits

Data Scientist, Custom Insights

84.51%

May 2016 - Aug. 2016

Cincinnati, OH

- Created diagnostic 2,000 line SQL outlier detection system to screen data for executional issues; saves analysts approximately 4 - 8 hours per test with issue

RESEARCH

Minimizing Societal Cost of Credit Card Fraud with Machine Learning¹

DEPAUW UNIVERSITY

Jan. 2018 - May 2018

Greencastle, IN

- Presented at RHIT mathematics conference and DePauw University Poster Session
- Developed AI platform to minimize cost of fraud in real dollars with Machine Learning
- Explored cost optimization with ensembles, genetic algorithms, custom objective function

Validating Weak-form Stock Market Efficiency with Machine Learning²

DEPAUW UNIVERSITY

Jan. 2018 - May 2018

Greencastle, IN

- Investigated weak-form efficient market hypothesis with ML-driven trading platform

LEADERSHIP

Founder & President

DPU DATA SCIENCE GROUP

Apr. 2017 - May 2018

Greencastle, IN

- Created and led 30+ student led Data Science, Machine Learning and AI group
- 3rd place in St. Mary's College Data Science Hackathon in 2018, 1st place in 2019

CTO & Co-President

DPU INVESTMENT GROUP

Apr. 2017 - May 2018

Greencastle, IN

- Managed \$170,000 of University endowment funding; oversaw trades and risk analysis
- Coordinated pitch to alumni donors that eventually was funded (2019) for \$1 million

PUBLICATIONS

- Showalter, S. and Wu Z. **Minimizing the Societal Cost of Credit Card Fraud with Limited and Imbalanced Data**, arXiv:1909.01486, 2019.
- Showalter, S. and Gropp J. **Validating Weak-form Market Efficiency in U.S. Securities with Trend Deterministic Price Data and Machine Learning**, arXiv:1909.05151, 2019.
- Berque D., Chiba H., Hashizume A., Kurosu M. and Showalter S. **Cuteness in Japanese Design: Investigating perceptions of Kawaii among American College Students**, Proceedings of the 9th International Conference on Applied Human Factors and Ergonomics, July 2018, Orlando, Florida, Springer.