# Samuel Showalter

SamShowalter

in samuelrshowalter

## **EDUCATION**

PhD Student

## UNIVERSITY OF CA, IRVINE

Computer Science, ML & Al **Advisor:** Dr. Padhraic Smyth Aug 2020 - Present

BA in Mathematics BA in Economics

#### **DEPAUW UNIVERSITY**

Computer Science Minor Cum. GPA: 4.00 / 4.00 **May 2014 - May 2018** 

## **SKILLS**

### **PROGRAMMING**

Languages

Python | R | SQL | Java Javascript

## **Distributed Computing**

Spark | CUDA | SparkML

#### Machine Learning Libraries

Tensorflow PyTorch Scikit-Learn OpenCV Numpy Pandas

#### Natural Language:

SpaCy NLTK TextBlob Gensim CoreNLP

## **AWARDS**

research project

#### **Edward Rector Scholarship** DePauw's full-ride merit scholarship; one of 12

Prindle Technology Prize<sup>1</sup> Most outstanding ethical

Frank T. Carlton Award<sup>2</sup> 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

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 **Q**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 Learning<sup>1</sup>

**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

Validating Weak-form Stock Market Efficiency in with Machine Learning<sup>2</sup> **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 Al group %
- St. Mary's College Data Science Hackathon 3rd place 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.