Samuel Showalter

samuelrshowalter@gmail.com | 260.249.4459
810 Deer Cliff Court, Fort Wayne IN | 46804

EDUCATION

DEPAUW UNIVERSITY
BA in Mathematics
BA in Economics
Computer Science Minor
College of Liberal Arts
Cum. GPA: 4.00 / 4.00

HOMESTEAD HIGH SCHOOL
Grad. May 2014
Fort Wayne, IN

LINKS

Portfolio:// samshowalter
LinkedIn:// samuelrshowalter
GitHub:// samshowalter

COURSEWORK

UNDERGRADUATE
Data Mining (TA)
Artificial Intelligence
Computational Statistics
Regressions/Simulations
Object Oriented Prog.
Data Structures
Financial Engineering
Financial Mathematics
Probability Theory
Game Theory
Corporate Finance
Financial Accounting

ABROAD
China (Jan. 2015)
Ecuador (Jan. 2016)

SKILLS

PROGRAMMING
Professional Experience:
Python • R • SQL • Git

Working Proficiency:
Java • C++ • LaTeX • ETL

Machine Learning:
Tensorflow • PyTorch • MXNet • Sklearn • OpenCV • GluonCV

Distributed Computing:
Spark • SparkML • Hive

Natural Language:
SpaCy • NLTK • TextBlob • Gensim • CoreNLP

EXPERIENCE

WEST MONROE PARTNERS | Data Science Consultant
February 2017 – Aug 2017, Aug 2018 - Present | Chicago, IL

- Lead data scientist for JP Morgan Chase data privacy classification initiative (6 months)
- Developed end-to-end ML pipeline; DAG framework; extracted semantic context from metadata; visualization with Luigi; flexible modeling; continuous learning and feedback
- Automated customer segmentation analysis for multiple clients; python Flask application
- Youngest member of leadership building Data Science training course for new employees.
- Advise, assess, and teach billion dollar organizations about Machine Learning and AI

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
Quantum Computing Research Fellow
May 2018 – Aug. 2018 | Boulder, CO

- Highly selective research fellowship given to approximately 20 students nationally
- Developed Python-based quantum state tomography software to characterize qubits
- Custom built entire package, including ML and gradient-based optimization algorithms
- Presented to 40 person research cohort and coordinated with Computer Science PhD students to parallelize solution. Will be included in future publication.

84.51° | Data Scientist, Custom Insights
May 2016 – August 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
- Programmatically evaluated the fiscal viability of strategic recommendations for Kroger
- Detection system to be converted into PL/SQL and integrated across the company

LEADERSHIP

DPU DATA SCIENCE GROUP | Founder & President (Apr. 2017 - May 2018)
April 2017 – May 2018 | Greencastle, IN

- Created and led 30+ student led Data Science and Artificial Intelligence group
- St. Mary's College Data Science Hackathon 3rd place in 2018, 1st place in 2019
- Gathered leadership team; coordinated speaker visits; developed 10+ projects.
- Connected Trello, Github, and Slack functionality for Agile framework development
- Members have received internships with Google, Uber, Amazon, and other tech firms

DEPAUW INVESTMENT GROUP | CTO, President (Feb. 2017 - May 2018)
August 2014 – May 2018 | Greencastle, IN

- Managed $170,000 of University endowment funding; manage website and portfolio data
- Coordinated restructure of group to operate as asset management firm in fall 2017
- Oversaw 7 sector coverage groups and integrated coverage reports into fund briefings

CIVIC FELLOWS PROGRAM | Treasurer (May 2016 - Dec. 2016)
August 2014 – May 2018 | Greencastle, IN

- Managed a $2500+ budget; allocated to large charity events including Service Plunge
- Coordinated large (100+ student) events around campus (30+ hours of service/semester)
- Selected as 1 of 7 to join elite civic service and advocacy organization (4 year commitment)

MANAGEMENT FELLOWS | Leadership Council (Aug. 2014 - May 2015)
August 2014 – May 2018 | Greencastle, IN

- Elected position; represented class of 50+ fellows interacting with program leadership
- Selective program with a core curriculum, lecture series, and semester long internship

MODELING

Supervised Algorithms:
Random Forest
Gradient Boosted Trees
Bayesian Inference
Analogizers (KNN, SVM...)
Logistic Inference
Genetic Algo. Optimization

Unsupervised Algorithms:
K-means Clustering
Hierarchical Clustering
Recommender Systems

Deep Learning:
Convolutional Networks
Object Localization
Gen. Adversarial Networks
LSTM Networks
Neuro-evolution

Financial Engineering:
Efficient Frontier
Hedging (Beta, Delta)

CERTIFICATIONS

SOA Actuarial Exam P
SOA Actuarial Exam FM

TEST SCORES

GRE | 330
- Quant: 167
- Reading: 163
- Writing: 6/6

SAT | 2220
- Quant: 800
- Reading: 710
- Writing: 710

SOCIETIES

Phi Beta Kappa
Omicron Delta Epsilon

RESEARCH

DEPAUW UNIVERSITY | Mathematics

Jan. 2018 – May 2018 | Greencastle, IN

- Winner of Prindle Technology Prize for best paper and ethics-based implementation
- Presented at RHIT mathematics conference and DePauw University Poster Session
- Developed AI platform to minimize societal cost of fraud with limited and imbalanced data
- Utilized platform to assess methods for optimizing models to minimize cost in real dollars

DEPAUW UNIVERSITY | Economics

Jan. 2018 – May 2018 | Greencastle, IN

- Investigated weak-form efficient market hypothesis with AI-driven trading platform
- Addressed noted discrepancies in Economic and Data Science Efficient Market findings
- Compared machine learning findings with traditional ADF and Variance Ratio tests
- Won the Frank T. Carlton Economics Award for outstanding senior economics research

PURDUE UNIVERSITY | Chemistry

May 2015 – August 2015 | Lafayette, IN

- Visiting researcher in Dr. Suzanne Bart's lab group, summer of 2013, 2014, and 2015
- Specialized in coordinating ligands to Iridium complexes for stabilization purposes
- Stabilized a Rhodium complex with a tridentate amine ligand; generated a crystal

INVOLVEMENT

DEPAUW IB WORKSHOP May 2016 – Dec. 2016 | Greencastle, IN

- Selective program dedicated to placing driven students in top investment banking firms
- Visited and interviewed with five large investment banks; completed mock workshops and interviews

PUBLICATIONS

- **Showalter, S.** and Wu Z. **Minimizing the Societal Cost of Credit Card Fraud with Limited and Imbalanced Data** , Preprint Submitted to Expert Systems with Applications, 2019.

- **Showalter, S.** and Gropp J. **Validating Weak Form Market Efficiency in American Stock Markets with Trend Deterministic Price Data and Machine Learning** , Preprint Submitted to the Journal of Finance and Data Science, 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.

AWARDS

Edward Rector Scholarship: DePauw's pre-eminent merit scholarship; one of 12; full tuition
Randal L. Wilson Award: Awarded to Junior who "has contributed most to field of economics"
Frank T. Carlton Award: Awarded to the outstanding senior economics major
H.E.H. Greenleaf Award: Awarded to the outstanding senior mathematics major
Prindle Technology Prize: Student who develops innovative research related to ethics