

ANDREW SIMONSON

Data Scientist | Applied Statistics & Platform Engineering

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EMPLOYMENT

Data Scientist / Data Engineer

Ecolab

📅 January 2024 – Present 📍 Saint Paul, MN

- Primary model developer of RushReady from inception through multimillion dollar product commercialization
- Engineered near-real-time data platform with Delta Live Tables and automated MLOps lifecycle across QSR brands
- Built explainable anomaly detection with XGBoost/SHAP attribution and brand-configurable recommendations, increasing speed of service by 20%
- Represented Ecolab as liaison in Microsoft's 100-member AI accelerator program

Azure Databricks Apache Spark Data Factory SQL

Data Engineer

Dow Chemical

📅 January 2023 – May 2023 📍 Freeport, TX

- Independently built reactive chemistry analysis Flask app encoding adiabatic correction and exotherm-detection logic across 9 test types
- Architected object-model abstraction, decoupling test-type parsers from report generation and replacing 4 legacy VBA tools
- Product became the interdepartmental data standard, saving >1,020 hours (~0.65 FTE) annually

MS Azure Posit Connect Visual Basic Docker

PROJECTS

Human vs AI Code Smell Study

- Analyzed 85K+ code definitions comparing AI vs human code maintainability via static analysis and non-parametric statistics
- Found AI code carries 3–4x more structural debt invisible to reviewers; recommends automated quality gates for AI-generated PRs

Generalized Trust Review

- Cross-national correlation analysis ($r=0.624$, $p<0.001$) of media and science trust across 128 countries with subgroup OLS regression
- Trust transfer attenuates 5.7x in low-press-freedom regimes; quartile progression from 12.3% to 26.2%

Antietam Watershed Monitoring

- ArcGIS choropleth dashboard monitoring stream temps and biotic indices across Upper Potomac sub-watersheds
- Flags exceedances of healthy stream conditions for state environmental review

Slate

- Surfaces optimal meeting windows by vectorizing iCalendar data into discrete-time signals with weighted constraint scoring
- Periodic fold analysis surfaces recurring availability patterns across an 80-member org

EDUCATION

Rochester Institute of Technology

Data Science M.S. | Computer Science B.S.

📅 B.S. Dec 2024, M.S. Dec 2026

📍 Rochester, NY

M.S. – Capstone Fall 2026

B.S. – GPA 3.63, Dean's List

Dual Cluster in Data Science and AI

Minor in International Relations

UCSanDiegoX Data Science MicroMasters

SKILLS

Python SQL R MATLAB

JavaScript Rust C# L^AT_EX

MS Azure Databricks Apache Spark

Machine Learning Data Mining

PyTorch Pandas Scikit-Learn

Docker Kubernetes ArcGIS

ACTIVITIES

Computer Science House

E-Board & Presenter | 🌐 csh.rit.edu

📅 Aug 2021 – Present

📍 Rochester, NY

- Presented seminars on web scraping, analytics, GIS
- Built and maintained web services for 80+ members

CERTS & AWARDS

🌐 asimonson.com/certs

Certified by Databricks:

ML Model Deployment, Retrieval Agents, MLOps

Certified by Microsoft:

Data Analysis Career Essentials

Docker Foundations

Hackathon Awards:

CSHacks – Best Use of AI (Paychex)

Tiger Games – Social Impact Winner

HACK.COMS '24 – Accessibility Winner