Samuel Gifford

sgiffor2@uic.edu | (upon request)| Chicago, IL

Quantitative researcher with strong technical expertise in computer science, machine learning, economics, and finance. Demonstrated track record of excellence across multiple roles, with particular emphasis on project initiative and cross-departmental collaboration.

EDUCATION

University of Illinois Chicago | **Ph.D. Economics** — Expected 2026
Olivet Nazarene University | **B.S. Actuarial Science** — 2014

EXPERIENCE

University of Illinois Chicago — Chicago, IL
Primary Instructor; Econometrics, Statistics — January 2022 – Present

- Averaged 4.47/5.0 student evaluation rating across 5 semesters
- Developed standardized programming labs for departmental use

Milliman Financial Risk Management — Chicago, IL
Software Engineer, Trading Technology — April 2019 - December 2020

Worked closely with trading team to implement delta hedging operations into .NET environment.

- Onboarded two clients into updated risk management system
- Updated Excel add-in to facilitate data integration across departments
- Led documentation overhaul for software architecture, processes, and business logic
- Trained new project manager and QA engineer with respect to risk products

Allstate — Northbrook, IL
Senior Quantitative Analyst — June 2017 - April 2019

Technical lead on the Modeling and Major Initiatives Team. Worked closely with data scientists, actuaries, and regional staff to update and implement predictive models.

- Led design of homeowners loss model implementation that saw countrywide adoption
- Presented and created training sessions for version control using git
- Improved model runtime by a factor of 25 through parallelization and optimization

Actuarial Analyst — December 2014 - June 2017

Analyst on the Northwest pricing team. Implemented price optimization strategies for homeowners and automobile insurance lines.

- Created software to interactively map and cluster data in Shiny R for territorial analysis
- Updated homeowners indication methodology regarding treatment of weather losses
- Optimized pricing change for auto lines by identifying segments to target profitable growth

SKILLS

Programming R, Python, C#, C++, SQL, Linux, Git

Technical Big Data, Hadoop, Natural Language Processing (NLP), Machine Learning, Statistics, Mathematics, Econometrics, Data Visualization, Retrieval Augmented Generation (RAG)

Business Economics, Quantitative Finance, Networks, Corporate Finance, Corporate Governance

RECENT AWARDS

- Sylvia L Saffrin Award for outstanding performance in PhD Coursework
- Ph.D. Student Paper Finalist, Illinois Economics Association

RESEARCH

The Formation of Director Networks and Their Effect on Governance: Evidence from Corporate Relocations

- Parsed over 100,000 SEC 10-K PDF documents using natural language processing (NLP)
- Constructed graphs and computed key network metrics from tabular data
- Employed topological difference-in-differences design to identify causal estimate