Dr. Molly Susan Quinn

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Personal Profile

- Experienced Sr. Data Scientist with Ph.D.in Computer Science and background in experimental psychology.

- Experience researching and evaluating NLP systems as well as explainable AI (XAI) as evidenced by Ph.D. research and current role.

- Proficiency in **Python** (7 years), **R** (3 years), querying and working with data **SQL** (5 years), **Excel** (10 years), **PySpark** (2 years), MLOps best practices **Docker**, **MLFlow** and other tools.

- Ability to communicate results to internal and external stakeholders and translate into clear strategic recommendations for non-technical audiences in current work as Sr. Data Scientist.

- Collaborate cross-functionally with specialists in multiple fields, as well as university partners, as evidenced by published articles in psychology, explainable AI, and radiology.

- Proven self-starter; from gathering leadership and stakeholders in order to collaborate on clear project goals, to creating a start-up's first KPI dashboard in my downtime.

Relevant Experience

Senior Data Scientist

Target   Minneapolis, MN   June 2023 - present

As a member of the Product Availability team, I am advancing machine learning models to identify unknown out-of-stock items on store shelves and backroom.

Model in production predicts the most valuable item-locations for team members to manually audit, ensuring allocated labor returns at least $6 per audit.

CI/CD Practices continually improving inference pipeline.

Proven experience translating business questions into mathematical problems, coordinating with leaders, product owners, and prioritizing real-world solutions.

Attentive to best practices such as Agile ceremonies, MLOps, and code review.

Working with big data using **Pyspark**, **Docker**, **MLFlow**, **Hadoop**, **Hive**.

Ability to take complex data science methodologies and explain them to technical and non-technical business partners and senior leadership.

Volunteered with company group tch2elevate mentoring high school students in JavaScript, CSS, and HTML to create their own shopping cart webpages.

Contributor to internal initiatives for Women in Technology including job shadowing for school students.

June 2023 - June 2024

Rotated through two teams on three projects, working on machine learning solutions for supply chain, customer intelligence, and promotions.

Driving increased accuracy in price estimations of salvage items sent to reverse logistics B2B channels in the middle mile supply chain - model in production.

Created counterfactual explainable AI solution for identifying which behaviors will move customers to higher levels of engagement with the company.

Graduate Researcher	*University College Dublin* Dublin, Ireland	2018 - 2023

Conducted quantitative research, experimental design, online data collection, and analysis in **Python**.

Trained, evaluated, and optimized hyperparameters of transformer models for text classification and generation applied to cognitive psychology domain.

Application of explainable AI to determine the "why" of model performance.

Consulted for radiologist leading a medical AI ethics project on best practices in survey design, gathering and analyzing the data to address research questions.

Multidisciplinary collaboration evidenced by published articles in psychology and AI, and working papers in radiology and computational social science.

Data Analyst	*TAO Connect, Inc.* St. Petersburg, FL	Feb 2017 - June 2018

Developed the company's first dashboard for interactive data visualization of key business metrics using **R** and the Shiny web application package, **SQL**, and **Git**, automating daily and monthly reports for the sales team and CEO.

Conducted inferential statistics on user activity data using **R** and **SQL**.

Partnered with stakeholders to provide analytical solutions to business needs.

Developed and analysed customer satisfaction survey, disseminated results internally and externally.

Presented results of service usage and mental health outcomes internally and publicly via 4 white papers, available on company's website and [my homepage](#).

Research Consultant	*University of South Florida* St. Petersburg, FL	2016

Partnered with stakeholders to design survey, analyze data, and deliver results to inform decisions about course offerings, reducing student attrition.

Consulted stakeholder on data visualization options in a Tableau-like software.

Adjunct Professor	*University of South Florida* St. Petersburg, FL	2016

Developed and delivered lessons and exams for Research Methods in Psychology on topics including data literacy, statistical analysis, and communication.

Skills	*Technical:*	Python, Jupyter Notebooks, SQL, PySpark, Git, R, Excel, SPSS
	Office:	Microsoft Office Word, Excel, PowerPoint, GSuite, Beautiful.ai
	Leadership:	Mentored university intern in data processing and research design.

Awards and Programs	Google Launchpad for Women - Google Cloud Training and Certification	2025
	Data Science Leadership Program (Target) - 3 people selected	2023-2024
	Next Generation Women Leaders (McKinsey & Co.) - 8% acceptance rate	2022
	Summer Institute in Computational Social Science (SICSS) - Fully Funded (Center for Research in Economics and Statistics, Ecole Polytechnique)	2022
	Early Career Publication Award (European Society for Cognitive Psychology)	2021

Education	**PhD, Computer Science,** *University College Dublin*	2018 - 2023

Thesis: What we can expect and what is unexpected: Psychological and computational (NLP) investigations into people's everyday cognition of unexpected events

	MA, Psychology, *University of South Florida St. Petersburg*	2014 - 2015

Thesis: Does hindsight bias impair learning?

	BA, Psychology, *University of South Florida St. Petersburg*	2011 - 2014