

CLAUDIE COULOMBE

Applied Research and Data Science

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SUMMARY

Applied researcher with 5+ years of experience in Industrial/Organizational Psychology. Proficient in data science and in applying quantitative and qualitative research methodologies, including survey design, statistical analysis, and thematic analysis. Proven ability to lead research projects from conception to completion and translate findings into internal operational trend reports, external trend insights reports, and peer-reviewed journal manuscripts. Passionate about leveraging research and analytics to drive meaningful change in HR practices.

EDUCATION

Master's, Industrial-Organizational Psychology University of Guelph 2020 - 2022	GPA 4.0 / 4.0
BA (Honours), Psychology McGill University 2015 - 2019	GPA 4.0 / 4.0

RELEVANT EXPERIENCE

Data Scientist - Research and Product Development

System-3

- 01/2024 - Present Toronto, Canada
- Launched a bi-annual trend insights reporting initiative, analyzing data from 800+ leaders to uncover patterns in competency prioritization across industries and position levels.
 - Analyzed user feedback via thematic analysis to identify key product strengths and improvement opportunities. Presented recommendations to leadership, influencing the 2025 product roadmap.
 - Designed and pitched a psychometric study to evaluate the predictive validity and reliability of the System-3 assessment, securing C-Suite approval.
 - Led 15+ science training sessions, simplifying technical concepts to help diverse audiences understand and use the System-3 assessment.
 - Led end-to-end development of key metrics to assess leadership candidates, integrating algorithm design and product development to support talent decisions.
 - Developed an automated process to analyze user base composition and competency trends across roles and industries.

Data Analyst, Research and Product Development

System-3

- 10/2022 - 01/2024 Toronto, Ontario
- Designed a psychometrics program and evaluation tool to assess the rigor of hiring tests.
 - Produced technical manuals and infographics to simplify complex concepts for stakeholders.
 - Enabled data-informed decision-making via interactive reports and impact tests.
 - Produced materials for 15+ major clients, including custom analyses and recommendations for hiring, succession planning, and talent development.
 - Automated workflows to improve operational efficiency, reducing client project time by 240 hours annually, cutting debrief preparation time by 75%, and reducing presentation development time by 50%.
 - Collaborated cross-functionally to develop and integrate new data visualizations and insights into products, enhancing client satisfaction.
 - Managed 2 junior contractors to deliver projects on time and within quality standards.

Research Assistant, Data & Psychometrics

Nugget.ai

- 04/2021 - 08/2022 Toronto, Ontario
- Conducted studies evaluating the reliability and validity of a selection tool, increasing confidence in its precision and accuracy.
 - Automated data cleaning and analysis workflows, enhancing efficiency and replicability.
 - Drafted an article for publication to strengthen Nugget.ai's credibility and visibility.
 - Created training and onboarding materials to support internal knowledge sharing.
 - Conducted statistical tests in R and Excel to inform research findings.

Lab Manager, Lab for Organizational Leadership

Lazaridis School of Business and Economics

- 2019 - 2020 Waterloo, Canada
- Designed and conducted research studies on leadership and workplace behavior using cross-sectional, time-lagged, Q-Sort, and longitudinal designs.
 - Developed online surveys, using best practices to enhance data quality and reduce attrition.
 - Managed data collection from online platforms, prepared datasets in Excel, and ensured reproducibility through documentation.
 - Trained and supervised research assistants, fostering skill development and ensuring adherence to research protocols.
 - Authored and reviewed journal manuscripts for publication in peer-reviewed journals.

TECHNICAL SKILLS

Programming & Query Languages

R, SQL

Data Visualization

Shiny, Looker Studio, Quarto, Highcharter, ggplot2, Plotly

Data Analysis

Data Cleaning & Transformation, Thematic Analysis, Exploratory Data Analysis, T-Tests, ANOVA, Correlations, Chi-Square Tests, Latent Profile Analysis, Logistic Regression, Linear Regression, Random Forest, Multilayer Perceptron, Psychometric Analyses

Other

Microsoft Office Suite (Excel, Word, Powerpoint), Google Suite (Docs, Sheets)

LANGUAGES

English	●●●●●
Native	
French	●●●●●
Native	

CERTIFICATION

SQL Fundamentals

Datacamp

PERSONAL PROJECTS

Turnover Prediction App

- Developed a [Shiny app](#) that allows users to upload datasets and train machine learning models to perform binary classification tasks such as predicting turnover.
- Included features for comparing model performance and identifying at-risk employees to inform retention strategies.
- Designed an interactive and user-friendly interface to support non-technical users in exploring predictive insights.

Team Optimization Algorithm

- Designed a [Shiny app](#) with an algorithm that uses test scores (e.g., personality, skills) to form groups optimized for maximizing similarities or differences, depending on goals.
- Applied the algorithm in a real-world context, where it was successfully used to enhance team formation strategies.

RECENT PUBLICATIONS

Rogers communications: A leadership opportunity?

2024 | Sage Business Cases

License to retaliate: Good deeds as a moral license for misdeeds in reaction to abusive supervision.

2022 | Human Performance

Can two wrongs make a right? The buffering effect of retaliation on subordinate well-being following abusive supervision.

2022 | Journal of Occupational Psychology

Third-party reactions to supervisor mistreatment through an identity theory lens.

2021 | Canadian Psychology/Psychologie Canadienne