CLAUDIE COULOMBE

Data Analytics, Applied Research, & I-O Psychology

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SUMMARY

I bring 3 years of experience in data roles within startups and 5+ years of research experience in non-profit and academic contexts. My work integrates Industrial/Organizational Psychology, applied research, and data analytics to help companies make informed decisions about their most valuable resource: their people. I have led projects to develop algorithms, metrics, and reports that have supported hiring, succession planning, team effectiveness, and leadership development initiatives. Proficient in quantitative and qualitative research methodologies, including survey design, statistical analysis, and thematic analysis, I am passionate about leveraging data-driven insights to drive meaningful change in HR practices.

TECHNICAL SKILLS

Programming and Querying: R, SQL (PostgreSQL)

Data Visualization: Shiny, Looker, Quarto, Highcharter, ggplot2, Plotly

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

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

LANGUAGES

French – Native

English - Native

EDUCATION

Master's Degree, Industrial-Organizational Psychology
2020 – 2022 | University of Guelph
- *Research and Statistics Courses*: Research Methods, Multilevel Modeling, Multivariate Statistics, Research Design & Statistics
- *Content Courses*: Recruitment and Selection, Employee Performance, Social Processes in the Workplace, I/O Psychology Consulting, Research Seminar

Honors' Bachelor of Arts, Psychology
2015 – 2019 | McGill University

WORK EXPERIENCE

DATA SCIENTIST - Research and Product Development
System-3 | Toronto | Jan 2024 - Present
- Led the end-to-end development of 4 metrics for assessing senior leadership candidates, from conceptualization to algorithm design in R and product integration, supporting data-informed hiring decisions.
- 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, directly 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.
- Delivered 15+ science training sessions, simplifying technical concepts for diverse audiences to enhance the effective use of the System-3 assessment.
- Redesigned the product's Leadership Profile categories using statistical techniques to better reflect leadership styles, improving the tool's client value.
- Spearheaded data initiatives, conducting standard and ad-hoc analyses for internal and external stakeholders.
- Developed an automated process to analyze user base composition and competency trends across roles and industries.
- Collaborated with software developers to convert prototype code into production-ready algorithms.

DATA ANALYST - Research and Product Development
System-3 | Toronto | Oct 2022 – Jan 2024
- Automated workflows, reducing client project time by 240 hours annually, cutting debrief preparation time by 80%, and reducing presentation development time by 50%.
- Improved algorithms to minimize manual intervention and errors, enhancing accuracy.
- 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.
- Designed a psychometrics program and evaluation tool to assess the rigor of hiring tests.
- Collaborated cross-functionally to develop and integrate new data visualizations and insights into products, enhancing client satisfaction.
- Produced technical manuals and infographics to simplify complex concepts for stakeholders.
- Used various statistical techniques in R and Excel for individual and team-level analyses.
- Managed 2 contractors to deliver projects on time and within quality standards.

RESEARCH ASSISTANT – Data and Psychometrics
Nugget.ai | Toronto | Apr 2021 – Aug 2022
- 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 across projects.
- 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 analyses in R and Excel to inform research findings.

CONSULTANT
Organization and Management Solutions | Guelph | Sept 2020 – June 2022

Training and Development
- Trained 6 consultants on how to conduct structured behavioural interviews, their benefits in reducing bias and improving accuracy and fairness in hiring, and small group facilitation techniques.
- Led 3 day-long training sessions consisting of small-group workshops to train a total of 45 managers on the use of structured behavioural interviews.
- Facilitated 2 workshops designed to train managers on structured behavioral interview techniques, including leading small group activities and discussions, evaluating participants, and providing personalized developmental feedback.
- Mentored a junior consultant through the OMS Mentorship Program.

Personnel Selection
- Led a team of 4 consultants in developing an institutional methodology for reviewing hiring assessment tools for adverse impact, test bias (differential validity and prediction) and fairness.
- Developed a structured interview guide assessing key soft skills for an IT role based on a job analysis.

Knowledge Translation
- Synthesized institutional knowledge and resources to create a manual to prepare future consultants to be lead facilitators for structured interview training sessions with managers.
- Planned, researched, and drafted a business case with three colleagues to be submitted for publication.
- Led a team of 2 consultants in the creation of a toolkit containing actionable, science-based tips on how topics related to employee well-being.
- Created a second toolkit containing actionable steps for how to support employee work-life balance by reviewing and translating knowledge from the research and practice literature.

Diversity, Equity, and Inclusion
- Developed materials for focus groups designed to gather feedback on a leadership competency framework promoting gender equity; assisted in gathering feedback for focus groups.
- Performed a thematic analysis of qualitative data collected from interviews with senior leaders to support a project aiming to create a leadership competency framework promoting gender equity.

TEACHING ASSISTANT – Department of Psychology
University of Guelph | Guelph | Sept 2020 – May 2022
- Served as a teaching assistant for 3 undergraduate classes (Intro to Psychology twice, Historical and Critical Perspectives on Psychology).
- Graded and provided feedback for 400+ student essay.
- Facilitated in-person and virtual discussions and evaluated participation.
- Corresponded with and assisted students over email.

LAB MANAGER – Lab for Organizational Leadership Research
Lazaridis School of Business and Economics | Waterloo | Sept 2019 – Sept 2020
- Designed and conducted research studies on leadership and workplace behavior using cross-sectional, Q-Sort, time-lagged, and longitudinal designs.
- Developed online surveys, using best practices to enhance data quality and reduce attrition.
- Managed data collection across online platforms (e.g., CloudResearch, MTurk), tracking participation, troubleshooting issues, and assigning compensation.
- Cleaned and prepared datasets in Excel, ensuring reproducibility through clear documentation.
- Validated materials for an intervention intended to increase the centrality of humility in leader prototypes (e.g., substantive validity).
- Developed training guides for research tools, trained and onboarded undergraduate and graduate research assistants.
- Contributed to academic knowledge by authoring and reviewing journal manuscripts for publication in peer-reviewed journals.

RESEARCH AND EVALUATION ASSISTANT
Stella's Place | Toronto | May 2019 – Aug 2019
- Evaluated the effects of a modified Dialectical Behavior Therapy program on young adults' use of effective coping skills, resilience, and self-efficacy.
- Reviewed literature, cleaned and merged datasets, analyzed data on Excel and SPSS, performed qualitative coding, drafted a research article for publication.
- Prepared the annual Research and Evaluation Report, documenting progress on KPIs and research initiatives.

RESEARCH ASSISTANT – Lockwood Lab, Department of Psychology
University of Toronto | Toronto | Jan 2019 – Aug 2019
- Contributed to studies investigating the nature and effects of social comparisons.
- Scheduled participants, administered study procedures to 91 dyads for an experimental study, and to 106 participants for a longitudinal study.
- Reviewed literature for studies on athletic role models and the operationalization of closeness, researched, coded, and cleaned data for 950+ survey responses.

JUNIOR EVALUATION ANALYST
Correctional Services Canada | Ottawa | May 2018 – Aug 2018
- Contributed to an evaluation of chaplaincy services provided in federal correctional institutions in Canada.
- Developed surveys, liaised with stakeholders and subject matter experts, entered and validated data for 500+ inmate surveys, developed a thematic analysis codebook and performed qualitative coding.

RESEARCH ASSISTANT – Lydon Lab, Department of Psychology
McGill University | Montreal | Sept 2016 – Jan 2018
- Contributed to various social-cognitive psychology research projects in Honours student and research assistant roles.
- Performed literature searches, created online surveys on Qualtrics, programmed a reaction-time task using Inquisit, developed a 9-item self-presentation scale, recruited and scheduled participants for in-lab studies, administered study procedures to 90+ participants.
- Used SPSS to clean and analyze data, performed qualitative coding of study transcripts.
- Developed and presented research posters at conferences, prepared two thesis manuscripts.

PUBLICATIONS AND CONFERENCE POSTERS

Cole, A., **Coulombe, C**., Gilbert, C., Hausdorf, P. A., & Power, J., (2024). Rogers communications: A leadership opportunity? In *Sage Business Cases*. SAGE Publications, Ltd., https://doi.org/10.4135/9781071921586

Liang, L. H., **Coulombe, C**., Skyvington, S., Brown, D. J., Ferris, D. L., & Lian, H. (2022). License to retaliate: Good deeds as a moral license for misdeeds in reaction to abusive supervision. *Human Performance, 35*(2), 94-112. https://doi.org/10.1080/08959285.2022.2032069

Liang, L. H., **Coulombe, C**., Brown, D. J., Lian, H., Hanig, S., Ferris, D. L., & Keeping, L. M. (2022). Can two wrongs make a right? The buffering effect of retaliation on subordinate well-being following abusive supervision. *Journal of Occupational Health Psychology, 27*(1), 37–52. https://doi.org/10.1037/ocp0000291

Coulombe, C., Liang, L. H., & Brown, D. J. (2021). Third-party reactions to supervisor mistreatment through an identity theory lens. *Canadian Psychology/Psychologie Canadienne, 62*(2), 195–203. https://doi.org/10.1037/cap0000266

Coulombe, C., Rattelade, S., McLaughlin, M., & Choi, J. (2020). A peer-clinician approach to the delivery of dialectical behavior therapy targeted to young adults in a community mental health setting. *Canadian Journal of Community Mental Health, 39*(2), 65-69.

Coulombe, C., & Spence, J. (2022, June). Investigating the "we" in me: Within-person fluctuations in organizational identification [Conference poster]. Canadian Psychological Association Annual National Convention, Calgary, Canada.

Wang, L., Liang, L., Brown, D., & **Coulombe, C**. (2022, June). An empirical redundancy test between workplace deviance and negative gossip constructs. [Poster]. Submitted to the Canadian Psychological Association 2022 Annual National Convention, Calgary, Canada.

Coulombe, C., Liang, L., Brown, D., & Brunner, L. (2020, July–August). Introducing humility in leadership: Identifying humble leadership passages for leader prototype interventions [Conference poster]. 81st Canadian Psychological Association Annual National Convention, Montreal, Canada.

Coulombe, C., Auger, E., Shin, G., Engstrom, H., & Lydon, J. (2018). Move in my direction: The effect of relationship status on approach and avoidance biases to attractive potential dating partners. [Poster] 2018 International Congress of Applied Psychology. Montreal, Canada.

Coulombe, C., Cohen, A., Auger, E, & Lydon, J. (2017). Not presenting our best self: How relationship motivation and executive control regulate self-presentation to attractive alternatives. [Poster] Arts Research Internship Award, McGill University, Montreal, Canada.

Coulombe, C., Engstrom, H., Auger, E., & Lydon, J. (2017). The paradoxical effect of relationship identification on relationship satisfaction. [Poster]. McGill University departmental poster session, Montreal, Canada.

AWARDS AND SCHOLARSHIPS

2021   Dean's Scholarship (*$2500)*
            Ontario Graduate Scholarship (*$15000)*
            University of Guelph Board of Graduate Studies Research Scholarship (*$2000)*

2020   Social Sciences and Humanities Research Council (SSHRC) – Joseph-Armand Bombardier Canada
            Graduate Scholarships Program Master's Scholarship (*$17500)*
            University of Guelph Dean's Tri-Council Graduate Scholarship (*$5000*)
            Canadian Society of Industrial/Organizational Psychology Best Poster Award: Third Place (*$100*)

2019   First Class Honours in Psychology
            Pelletier Prize *($920)*

2017   Arts Research Internship Award (*$4000*)
            Mary Coppin Scholarship (*$3000)*