

Emory Richardson

DATA SCIENTIST | ADVANCED ANALYTICS | USER RESEARCH

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Publications: <https://bit.ly/3Fw9FfA>

PROFESSIONAL SUMMARY

Thoughtful, applied data scientist with 10 years of experience building advanced statistical models and driving innovative mixed-methods experimentation to find the difference-that-makes-a-difference in human behavior. Expert in R, with strong proficiency in SQL and other analysis & data visualization tools. Talent for translating complex data into insights that are equally compelling in boardrooms and code huddles. Obsessed with helping teams solve problems faster by asking the right questions and designing targeted experiments.

SKILLS AND EXPERTISE

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| ○ Experimental design (factorial, A/B, time series, user interviews, surveys, behavioral intervention) | ○ Advanced analytics (regression, ANOVA, t-test, mixed-effects, Bayesian models, power analysis) | ○ Data Storytelling & Visualization |
| ○ Mixed-methods research | ○ Statistical programming (R, SQL, Python foundations) | ○ Panel Management (SalesForce) |
| | | ○ Team Leadership |
| | | ○ Multi-lingual (English, Russian) |

PROFESSIONAL EXPERIENCE

UNIVERSITY OF MICHIGAN (ANN ARBOR, MI)

Sr. Research Scientist

05/23 – 06/24

Managed 4 public health intervention studies, applying expertise in collective learning from peer testimony in social networks to guide stakeholders in defining hypotheses & experimental designs, leading data collection team and using R to automate data cleaning & analysis process.

- Trained & managed 16 junior researchers in best practices for 1:1 in-depth interviews & data management, improving data quality and reducing error rates by 30%.
- Used advanced statistical analyses (ordinal regression with custom contrasts) to identify 4 key misunderstandings of disease transmission associated with a 15% increase in 3 risky behaviors.
- Designed innovative intervention that improved infection risk estimates by 38% by targeting participants' basic numerical reasoning skills using empirical similarities between viral load & social conformity.

YALE UNIVERSITY (NEW HAVEN, CT)

Research Scientist

08/17 – 05/23

Led 100+ mixed-methods studies from design to analysis, using R and A/B testing to improve prototypes and surface insights about behavior, decision-making, and attitudes. Managed remote research ops, including interviews, budgets, and a 3K+ respondent panel in Salesforce.

- Pioneered new methods for studying decision speed, trust in peer recommendations, and collective learning in social networks, using iterative A/B testing & 1:1 user interviews to improve user success on KPIs by over 60%.
- Conducted simulation-based power analyses in R for complex statistical models (regressions, ANOVAs, chi-square, t-tests), saving up to 30% on data collection costs by more precisely estimating minimum effective sample sizes.
- Co-developed computational Bayesian model to detect rumors carried by information cascades (i.e., “broken telephone”), improving model fits ($R=.81$ to 0.92) by targeting participants' intuitions about popularity & conformity.
- Translated complex findings into compelling stories and insights, reaching both technical and non-technical audiences through 8 publications & dozens of presentations at international conferences.
- Co-developed first platform for remote interviews with children and parents, conducting online ad campaigns to grow Salesforce panel to 3000+ families in year 1 and conducting 900+ in-depth interviews annually.

UNIVERSITY OF CHICAGO & BOOTH SCHOOL OF BUSINESS (CHICAGO, IL)

Jr. Research Analyst

08/15 – 08/17

Supported survey design, data collection, and analysis for 10K+ participants across studies on decision-making, stress, and memory in 3 countries and 4 languages.

- Developed & validated novel psychometric scale, synthesizing relevant literatures to identify key components of intellectual humility and iteratively refining online surveys to achieve reliability $\alpha = .898$.

- Designed & analyzed experiments demonstrating that describing visual memories in a foreign language distorts them less than in a native language, surfacing insights in written reports to support expansion of research grant.
- Curated a specialized dataset (CCTV, sports footage) & analyzed survey data demonstrating that slow-motion footage increases perceived intent, supporting legal research informing debates on its use in jury trials & sentencing.

EDUCATION AND CERTIFICATIONS

PhD, Cognitive & Behavioral Sciences	Yale University (New Haven, CT)	2023
MA, Social Sciences	University of Chicago (Chicago, IL)	2016
BA, Philosophy & History of Science	St. John’s College (Santa Fe, NM)	2009