

BARBARA HIDALGO-SOTELO

Data Scientist | Behavioral Research Expert | Cross-Functional Leader

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SUMMARY

MIT-trained data scientist and behavioral researcher with expertise in analyzing human behavior data and translating complex insights into actionable recommendations. Proven track record in experimental methods and working with cross-functional teams through data-driven transformations. Expertise in Python, Matlab, and SQL, combining technical skills with business acumen to translate complex data insights into compelling narratives for non-technical audiences.

EXPERIENCE

Data Scientist

Metric5 Consulting 2021 - 2023 Remote (Client based in Washington DC)

- Created interactive PowerBI dashboard that transformed ServiceNow workflow data into actionable insights, enabling stakeholders to identify and resolve data access bottlenecks across the organization
- Partnered with Chief Librarian to develop business requirements for Data Catalog implementation at SEC, aligning organizational needs with Federal Data Strategy mandates for self-service access and secure data practices
- Facilitated cross-functional collaboration during Data Catalog development sprints, bridging communication between business stakeholders and development team to align product features with business requirements
- Mentored junior analyst in technical skills and quality assurance practices while managing workflow distribution across team projects

Research Project Manager - Eye Tracking

MediaScience 2017 - 2017 Austin, TX

- Applied advanced statistical methods and machine learning techniques to analyze human behavior data, including eye tracking, GSR, and facial expressions
- Executed experimental studies to collect behavioral data, ensuring statistical validity and reliability
- Developed automated analysis pipelines in Python to process large-scale behavioral datasets
- Translated complex behavioral insights into clear, actionable recommendations for media industry clients

Business Management Consultant

Persis Consulting 2014 - 2017 Remote

- Led cross-functional collaboration between business and IT teams to gather requirements and design web software products for clients in the healthcare and Project Management industries.
- Designed and implemented evaluation processes to ensure product quality and user experience
- Developed product training materials that improved user adoption through clear documentation and video guides

Research Engineer/Scientist

University of Texas at Austin 2013 - 2016 Austin, TX

- Built scalable data collection & analysis tools used by 12+ research staff members
- Created analysis workflows using MATLAB, Excel, and scripting for longitudinal studies on behavioral development
- Developed & validated algorithms for extracting behavioral metrics from raw data
- Built interactive tools using Python to facilitate data analysis by research staff
- Collaborated with cross-functional teams to ensure data quality & research validity

CERTIFICATIONS

Microsoft Certified: Azure AI Engineer Associate

Issued by Microsoft, June 2024

Certified Data Management Professional (CDMP) Associate

Issues by DAMA International, March 2024

AWS Certified Cloud Practitioner

Issued by Amazon Web Services, June 2023

Open Knowledge Graph Certification

Issued by EDM Council, 2022

TECHNICAL SKILLS

Programming

Proficient: Python | Matlab | SQL | Git | HTML

Intermediate: R | Cypher | JavaScript | Bash

Statistical Methods

Experimental design **Machine Learning**

Cluster analysis **Regression** **Text analysis**

Graph analytics

Data Visualization & App Frameworks

Proficient: Plotly | Matplotlib | Dash | Streamlit

Intermediate: PowerBI | Tableau | PyTorch

Generative AI & NLP

OpenAI API **Azure AI studio** **HuggingFace**

EDUCATION

PhD, Cognitive Science

Massachusetts Institute of Technology

- Dissertation: Applied advanced statistical methods to model human behavior across 900+ scenarios
- Research cited 417+ times, demonstrating impact in behavioral science field
- Mentored undergraduate researchers in experimental methods and data analysis

BS, Electrical Engineering

University of Texas at Austin

BS, Biology

University of Texas at Austin

STRENGTHS

💡 Research and Problem-Solving

Strong foundation in experimental methods and behavioral research, with proven ability to break down complex problems into actionable solutions.

💎 Technical and Business Acumen

Skilled at aligning data models and technical constraints with business strategy to drive insight-based decisions.

🤝 Collaborating with Cross-Functional Teams

Worked closely with developers, researchers, and executives to implement metrics-focused solutions.

👥 Mentoring and Leadership

Experienced mentor of interns and junior colleagues, enhancing their skills while advancing project goals.