Jeff Helzner

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Summary

My work centers on helping organizations make better decisions by aligning data, modeling, and human judgment. Over two decades, I have moved between academia and industry, from studying the foundations of decision theory to designing production data systems to support decision-making in the insurance industry. I believe that an organization's data needs are best understood through the decisions that data is meant to inform.

Since 2014, I've applied this philosophy in the insurance industry—first at AIG, where I led behavioral science initiatives, and more recently at Joyn Insurance and Berkley Enterprise Risk Solutions, where I've built data pipelines, probabilistic models, and reporting systems that inform underwriting, claims, and customer relationship decisions. My work spans the full data lifecycle: from data engineering and model development to dashboards and executive reporting.

Experience

Director of Data Strategy and Analytics

Berkley Enterprise Risk Solutions (a Berkley company)   *March 2024 – Present*

Design, build, and manage strategic data systems and analytics infrastructure. My role bridges data engineering and decision science, ensuring that data systems are built not merely to report on outcomes, but to enhance the quality of decision-making itself.

- Created pipelines for ingestion and transformation of underwriting and exposure data.
- Designed and integrated novel probabilistic models for combining class rates with submission loss and payroll data.
- Partnered with leadership to design metrics and dashboards aligned with business decision frameworks.
- Created machine learning (ML) pipelines to standardize and complete missing fields in loss records extracted from OCR systems.
- Created AI-driven tools to assist risk inspectors and claims adjusters in preparing their reports more efficiently.

Decision Scientist

Joyn Insurance *October 2020 – January 2024*

At this early-stage insurtech, I helped build a data-driven underwriting platform from the ground up. My focus was on embedding decision science principles into the company's technical infrastructure and culture.

- Designed and maintained a software package for managing third-party data used in underwriting decisions.
- Developed machine learning and Bayesian models to prioritize submissions.
- Created tools and dashboards that surfaced model outputs in intuitive, actionable formats for underwriters.
- Collaborated with product and engineering teams to ensure data integrity and model interpretability.

Decision Scientist, Blackboard Insurance

AIG *December 2018 – August 2020*

Joined AIG's insurtech subsidiary to develop new methods for extracting behavioral insights from operational data. Worked at the intersection of analytics, human factors, and business strategy.

- Designed behavioral analytics models to understand underwriter and broker behavior.
- Worked with data engineering teams to build data pipelines to support analytics requirements.
- Collaborated with other members of the R&D team on NLP and OCR projects to extract structured data from unstructured documents.

Head of Behavioral Science Team

AIG *May 2014 – September 2018*

Founded and led AIG's behavioral science group—a small, high-impact team focused on improving human judgment and decision quality across underwriting and claims operations.

- Led projects on behavioral analytics, choice architecture, and noise reduction in human judgment.
- Collaborated with teams across the business, including actuarial, claims, underwriting, and shared services.
- Regularly presented findings to senior leadership, including the CEO and Chief Underwriting Officer, and was selected to represent the science team at multiple board meetings.

Associate Professor of Philosophy

Columbia University   *July 2011 – June 2014*

Assistant Professor of Philosophy

Columbia University   *August 2003 – June 2011*

Taught undergraduate and graduate courses on logic, probability, decision theory, and the philosophy of science. Research focused on the foundations of decision theory under uncertainty. Mentored students who have since gone on to careers in data science, economics, software engineering, and academia.

Education

Ph.D., Logic, Computation, and Methodology · Carnegie Mellon University

M.S., Logic and Computation · Carnegie Mellon University

M.A., Mathematics · University at Buffalo

B.A., Mathematics · University of Massachusetts

Selected Skills and Interests

- **Core Expertise:** Decision-making, data strategy, analytics
- **Tools:** SQL, Python, R, Stan, scikit-learn, Git, GitHub Copilot, Power BI
- **Focus Areas:** Aligning data and decisions, reducing noise and bias in human judgment, capturing domain expertise in interpretable models, Uncertainty quantification
- **Personal Interests:** Mathematical logic, rational choice theory, music (jazz), sports (ice hockey, football)

"Knowledge is a resource for inquiry and deliberation." — Isaac Levi