01/20/25

Sheldon H. Jacobson, Ph.D.

University of Illinois at Urbana-Champaign

Founder Professor of Computer Science & Engineering
Director, Institute for Computational Redistricting (ICOR)

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Websites:	**http://shj.cs.illinois.edu**
Bed Time Research Institute:	**http://btri.cs.illinois.edu**
Mathematics of March Madness:	**http://bracketodds.cs.illinois.edu**
Computational Redistricting:	**http://redistricting.cs.illinois.ed**
Obesity & Transportation:	**http://drivingobesity.cs.illinois.edu**

Primary and Affiliate Appointments:
Professor of Computer Science
Professor of Mathematics, Statistics (College of Liberal Arts & Science)
Professor of Medicine

Data Science, Artificial Intelligence
Operations Research, Public Policy, Public Health

Theory

- **Data-driven Decision-making under Uncertainty and Risk Assessment**
- **Optimization-based Artificial Intelligence**
- **Computational Optimization Approaches to Causal Inference**

Applications

Public Policy and Public Health

- **Public Health Data Analysis**
- **Obesity, Transportation, and Energy**
- **Mass Killing Rate Trend Analysis**
- **Cell Phone Bans and their Impact on Accident Rates**
- **Applied Economics**

Aviation Security and Air Travel Modeling/Analysis

- **Aviation Security System Design and Analysis**
- **Risk-Based Security Screening Strategies**
- **Security Technology**

Political and Social Science Modeling

- **Computational Redistricting & Gerrymandering Analysis**
- **Optimization-Based Design of Causal Inference Experiments**

NCAA Basketball and Sports Analytics

- **Mathematics of March Madness**
- **Statistical Analysis of Tournament Seedings**
- **Strategies for Bracket Analysis**