

## Raphael A. Finkel

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### Academic Training

- MAT, Secondary Mathematics Education, The University of Chicago, September 1972.
- PhD, Stanford University, Computer Science Department, September 1976.

### Employment History

- 9/76 – 7/82: Assistant Professor, University of Wisconsin, Madison.
- 7/82 – 9/86: Associate Professor, University of Wisconsin, Madison.
- 9/86 – 6/87: Professor, University of Wisconsin, Madison.
- 7/87 – present: Professor, University of Kentucky, Lexington.

### Selected publications related to decision making

- R. A. Finkel and J. L. Bentley, “Quad Trees: A data Structure for Retrieval on Composite Keys,” *Acta Informatica* **4**, 1, pp. 1–9, 1974.
- J. H. Friedman, J. L. Bentley, R. A. Finkel, “An Algorithm for Finding Best Matches in Logarithmic Time,” *ACM Transactions on Mathematical Software*, pp. 209–226, September 1977.
- Eric H. Herrin II and Raphael Finkel, “An ASCII Database for Fast Queries”, *Computing Systems*, **4**, 2, pp. 127-155, Spring 1991.
- Raphael Finkel, Wiktor Marek, Mirosław Truszczyński, “Constraint Lingo: Towards High-Level Constraint Programming”, *Software — Practice and Experience*, **34** 15, pp 1481-1504, 2004.
- Raphael Finkel and Barry O’Sullivan, “Reasoning about Conditional Constraint Specification Problems and Feature Models”, *Artificial Intelligence for Engineering Design, Analysis and Manufacturing* **25** 2 (special issue), Spring 2011 (to appear).

### Synergistic activities

- Sabbatical at the Cork Constraint Computation Centre, 2008–9.
- Director, Informatics Certificate, 1999–present.
- Director of Graduate Studies, Computer Science Department, 2008–present.
- Supervised 13 PhD students, including three women, about 10 research assistants, 52 masters students since 1988, 3 high-school research students.

### Other significant publications

- Raphael Finkel, Udi Manber, “DIB — A distributed implementation of backtracking,” *ACM TOPLAS* **9**(2): 235–256, April 1987.
- Raghu Ram Chamala, Roxana Ciocina, Raphael Finkel, Robert Grossman, Saravana Kannan, Prashant Ramachandran, “EPOCH: An Organic Chemistry Homework Program that Offers Response-Specific Feedback”, *Journal of Chemical Education*, **83**(1), 164–169, 2006.

- Q. Jiang, R. A. Finkel, D. Manivannan and M. Singhal. *RPSF: A Routing Protocol with Selective Forwarding for Mobile Ad-Hoc Networks*, *Wireless Personal Communications*, **43**(2), 411–436, October 2007.
- Raphael Finkel and Gregory Stump, “What your Teacher Told You is True: Latin Verbs Have Four Principal Parts”, *Digital Humanities Quarterly* **3**(1), Winter 2009.
- Raphael Finkel and Gregory Stump, “Predictability, predictiveness and paradigm complexity”, Invited paper presented at the workshop *Morphological Complexity: Implications for the Theory of Language*, Harvard University, January 22, 2010.

### **Advisees, advisors, and recent collaborators**

Vinton Cerf (advisor)	Andrew Hippiusley (faculty)	Jaleh Rezaie (PhD)
Brian Crawley (PhD)	Wei-Keat Kong (masters)	Bryan Rosenberg (PhD)
Alex Dekhtyar (faculty)	Lakshman Krishnamurthy (PhD)	Sharon Salveter (PhD)
John Fishburn (PhD)	Hari Haranath Madduri (PhD)	Mallika Sashi Allu (masters)
Judy Goldsmith (faculty)	Wiktor Marek (faculty)	Mukesh Singhal (faculty)
Beth Goldstein (faculty)	D. Manivannan (faculty)	Michael Scott (PhD)
Aaron Gordon (PhD)	Joan Mazur (faculty)	Greg Stump (faculty)
Robert Grossman (faculty)	Ọdétúnjí Ọdẹjọbí (co-author)	Madhu Sudan (PhD)
Jay Hatcher (student)	Barry O’Sullivan (faculty)	Mirek Truszczyński (faculty)
Eric Herrin II (PhD)	Chinya Ravishankar (PhD)	