

Education

Rutgers University

PhD Computer Science, 2002

Artificial Intelligence - Knowledge Representation, Expert Systems & Pattern Recognition

Thesis: *“Data Abstraction and Analysis using Qualitative Scaling”*

MS Computer Science, 1995

Carnegie-Mellon University

BS Applied Mathematics (Computer Science), 1987

Experience

Biostatistics and Decision Support Systems Consultant

– Partners Healthcare, 2010 – present

Participant in Knowledge Translation Specification Team and Knowledge Editor Software Developer for an Agency for Health Research and Quality (AHRQ) funded Clinical Decision Support Consortium

– Lehigh Valley Health Network 2009– present

Development of a decision analytic model for cardiovascular events involving a left ventricular assist device

– Cleveland Clinic, 2008 – present

Development of *“The Cleveland Clinic Risk Calculator Constructor”*, a novel web-based tool that assists statisticians in creating multi-platform risk calculators currently funded by the National Library of Medicine

– Infectious Disease Consultants PC, 2007 – present

Statistical analysis and classifier design to improve testing for Lyme Disease through the application of partial-ROC regression optimization methods

Assistant Professor of Medicine, 2003 – 2009

“Clinical” (Volunteer) Assistant Professor of Medicine, 2009 – present

Graduate Assistant & Programmer Analyst, 1990 – 2003

University of Medicine and Dentistry of New Jersey, Robert Wood Johnson Medical School

- Research and development of decision support systems, analytic & modeling software
- Decision analytic modeling for cost-effectiveness, outcomes research & health policy making
- Invention of a Hypertext Guideline Markup Language (HGML) as the basis of a delivery system for clinical practice guidelines [Conversion of Text to a Hypertext Markup Language. U.S. Patent 7,373,597]
- Exploration of semi-automated text markup, information extraction & knowledge representation

Biostatistics and Decision Support Systems Consultant

– McKinsey & Company, January 2010

Decision analytic software consulting involving Pneumococcal Health Policy Modeling for India

– Health Economics Resource Center, VA Palo Alto Healthcare System, Fall 2009

Development and adaptation of decision model evaluation software

For the past few decades I've been the principal developer of the *“Decision Maker”* family of modeling software widely used by the international academic Medical Decision Making community

– Johns Hopkins School of Public Health,

The Global Alliance for Vaccines and Immunization, 2007 – 2009
and the World Health Organization, 2009

Development & support of *“The Interactive Pneumococcal Policy Model”*

A web-browser-based interface for a dynamic cost-effectiveness model for vaccine policy decision-making

– Center for Clinical Health Policy Research, Duke University, 1997 – 2001

Developed a system for the representation & evaluation of Markov simulation models within a web-based architecture, applied to the comparison of stroke prevention strategies

Graduate Assistant, Rutgers University 1987 – 1990, 1998 – 2001

- PhD research in exploratory data analysis and dimensionality reduction techniques
- Created a computer configuration expert system for the Concurrent Computer Corporation

Porwancher, RB, Hagerty CG, Fan J, Landsberg L, Johnson BJB, Kopnitsky M, Steere AC, Kulas K, and Wong SJ
Multiplex immunoassay for Lyme disease using VlsE1-IgG and pepC10-IgM antibodies: improving test performance through bioinformatics. *Clin Vaccine Immunol.* 2011 Mar 2.

Kattan, MW, Yu C, Wells BJ, Hagerty CG

Web-based Prediction Model Deployment Application. *The 31st Annual Meeting of the Society for Medical Decision Making (October 18-21, Hollywood, CA, 2009), Medical Decision Making* 2010.

Hagerty CG, Sonnenberg FA, Knoll M, Levine O, Sinha A.

Decision Support for the Developing World: A Portable Health Policy Model for Pneumococcal Conjugate Vaccination. *The 30th Annual Meeting of the Society for Medical Decision Making; 2008 (Philadelphia, PA). Medical Decision Making* 2009; 29 (1): E44.

Hagerty CG.

Stochastic Medical Decision Making. (Kattan MW, Ed.) *Encyclopedia of Medical Decision Making.* Thousand Oaks, CA: Sage Publications. August 2009.

Hagerty CG, Sonnenberg FA, Pickens DS, Kulikowski CA.

Conversion of Text to a Hypertext Markup Language. U.S. Patent 7,373,597, Issued May, 2008.

Hagerty CG, Sonnenberg FA.

A Modular Open-Format Decision Model Representation and Presentation Methodology. *The 29th Annual Meeting of the Society for Medical Decision Making; 2007 (Pittsburgh, PA). Medical Decision Making* 2008; 28: E32.

Hagerty CG, Pickens DS, Chang J, Kulikowski CA, Sonnenberg FA.

Prediction in Annotation Based Guideline Encoding. *Proceedings of the American Medical Informatics Association (AMIA) Symposium (Washington, DC). 2006;314-318.*

Hagerty CG, Sanders GD, Sonnenberg FA.

Elephant Nodes Save The Day: More Efficient Cost Effectiveness Evaluation Of Strategies Involving Embedded Decisions. *The 27th Annual Meeting of the Society for Medical Decision Making; 2005 (San Francisco, CA). Medical Decision Making* 2006; 26: E54.

Sonnenberg FA, Hagerty CG.

Computer-Interpretable Clinical Practice Guidelines: Where are we and where are we going? (Haux R and Kulikowski C, Eds.) *Yearbook of Medical Informatics 2006. Methods of Informatics in Medicine* 2006; 45 Suppl 1:145-158.

Hagerty CG, Chang J, Pickens DS, Kulikowski CA, and Sonnenberg FA.

Semi-Automated Encoding of Guidelines. *Medinfo 2004. Proceedings of the 11th World Congress on Medical Informatics; 2004 (San Francisco, CA). Amsterdam: IOS Press; 2004: 1625.*

Kulikowski CA, Hagerty CG, Pickens D, Sonnenberg F.

Intelligent Systems for Clinical Guidelines. (Adlassnig KP, Ed.) *Proceedings of the EUNITE Workshop on Intelligent Systems for Patient Care; 2001 (Vienna). 2001;19-25.*

Hagerty CG, Pickens D, Kulikowski CA, and Sonnenberg FA.

HGML: A Hypertext Guideline Markup Language. *Proceedings of the AMIA Symposium; 2000;325-329.*

Sanders GD, Hagerty CG, Sonnenberg FA, Hlatky MA, Owens DK.

Distributed Dynamic Decision Support using a Web-based Interface for Prevention of Sudden Cardiac Death. *Medical Decision Making* 19, 1999;19(2):157-166.

Sonnenberg FA, Hagerty CG, and Kulikowski CA.

An Architecture for Knowledge-based Construction of Decision Models. *Medical Decision Making,* 1994;14(1):27-39.

Hagerty CG, Kulikowski CA, Muchnik I, and Kim S-H.

Two Indices Can Approximate Four Hundred and Two Amino Acid Properties. *Proceedings IEEE International Symposium on Intelligent Control/Intelligent Systems and Semiotics, 1999;365-369.*