Dr. Frank I. Klassner

Villanova University
Computing Sciences, Center for Excellence in Enterprise Technology
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Education

Ph D, University of Massachusetts/Amherst, 1996.
   Major: Computer Science
   Supporting Areas of Emphasis: Artificial Intelligence
   Dissertation Title: Data Reprocessing in Signal Understanding Systems

MS, University of Massachusetts/Amherst, 1990.
   Major: Computer Science
   Supporting Areas of Emphasis: Artificial Intelligence
   Dissertation Title: Discrepancy Diagnosis for Knowledge-Based Signal Processing

BS, University of Scranton, 1988, Summa cum laude.
   Major: Computer Science

BS, University of Scranton, 1988, Summa cum laude.
   Major: Electronics Engineering

Villanova University

Starting Rank: Visiting Assistant Professor, Start Date: August 22, 1997, Date Attained Rank of
   Assistant Professor: June 18, 1997, Date Attained Rank of Associate Professor: August 22,
   2003, Date Attained Rank of Full Professor: August 22, 2013.

Administrative Assignments (Villanova)

Center Director, Center of Excellence in Enterprise Technology, (June 1, 2006 - Present).

Professional Memberships

Association for the Advancement of Artificial Intelligence. (September 1996 - Present).

Association for Computing Machinery. (August 1996 - Present).

TEACHING

Teaching Interests

Artificial Intelligence, Multimedia and Virtual Reality, Machine Learning, Operating Systems

Teaching Experience

Villanova University
   CSC 1020, Computing and the Web, 4 courses.
   CSC 1600, Operating Systems, 1 course.
   CSC 1990, Enrichment Sem in Computing, 31 courses.
   CSC 4500, Artificial Intelligence, 6 courses.
   CSC 4510, Machine Learning, 4 courses.
   CSC 5930, TOP:Mobile Device Prog, 3 courses.
   CSC 5993, Independent Study, 2 courses.

CSC 8520, Artificial Intelligence, 2 courses.
CSC 8610, Multimedia Technology, 6 courses.
CSC 9020, Independent Study, 1 course.
HON 5702, CSC: Machine Learning, 1 course.
MSE 2000, Evol Lrng Comp Robotics Agnts, 1 course.

Directed Student Learning

Directed Individual/Independent Study, "Scaling an HTTP Push Web Application," Palkovic, Alex, 3 credit hours. (September 2010 - December 2010).

Directed Individual/Independent Study, "RenderServer," Priece, Daniel, 3 credit hours. (January 2010 - August 2010).

Directed Individual/Independent Study, "Recommendation Engines for Movies," Anders, Matthew, 3 credit hours. (January 2010 - May 2010).

Master's Thesis Committee Chair, "A Comparison of Genetic Wavelet Algorithms with the Standard Genetic Algorithm," Kirk, Kory, 3 credit hours. (January 2010 - May 2010).

Directed Individual/Independent Study, "Literature Review of Topics Related to The Genetic Wavelet Algorithm," Kirk, Kory, 3 credit hours. (September 2009 - December 2009).

Directed Individual/Independent Study, "A Evaluation of Transparent Optimization Techniques for the Mobile Web," Bettcher, Jonathan, 3 credit hours. (January 2009 - May 2009).

Directed Individual/Independent Study, "Content-Aware Image Resizing," Giordano, Russell, 3 credit hours. (January 2009 - May 2009).

Directed Individual/Independent Study, "Robot Localization Using a Particle Filtering Technique," Tao, Tao, 3 credit hours. (September 2007 - December 2008).

Directed Individual/Independent Study, "Color-Based Video Tracking," Beatty, Gregory, 3 credit hours. (January 2008 - May 2008).

Directed Individual/Independent Study, "Location-Based Mobile Social Networking," Woytowiez, Kristi, 3 credit hours. (January 2008 - May 2008).

Directed Individual/Independent Study, "Using Utility Theory for Decision Making in No-Limit Tournament Poker," Connolly, Michael, 3 credit hours. (January 2008 - May 2008).

Directed Individual/Independent Study, "Color as a Feature in Content-Based Image Retrieval," Campbell, Stephen, 3 credit hours. (January 2008 - May 2008).

Master's Thesis Committee Chair, "Musical Machines," Continanza, Christopher, 3 credit hours. (January 2008 - May 2008).

Directed Individual/Independent Study, "Musical Machines," Continanza, Christopher, 3 credit hours. (September 2007 - December 2007).

Directed Individual/Independent Study, "A Changing Environment: The Web and Desktop Collide," Bulava, Jonathan, 3 credit hours. (September 2007 - December 2007).

Directed Individual/Independent Study, "Use of Decision Trees to Analyze and Predict Financial Market Performance," Bernard, Charles, 3 credit hours. (June 2007 - December 2007).

Directed Individual/Independent Study, "Digital Audio Watermarking," Simons, Edwin, 3 credit hours. (September 2005 - December 2005).

Directed Individual/Independent Study, "A Survey of Copyright Protection Mechanisms," Rossihin, Vyacheslav, 3 credit hours. (September 2004 - May 2005).

Directed Individual/Independent Study, "Application of Digital Processing Techniques to Reduce the False Alarm Rate of an Automatic Seizure Recognition System," Talecki, Brian, 3 credit hours. (September 2004 - December 2004).

Directed Individual/Independent Study, "A Comparative Analysis of Several Pathfinding Algorithms for Games and Mobile Robotics," Hall, Trappier, 3 credit hours. (September 2004 - December 2004).

Master's Thesis Committee Chair, "The Analysis of Autonomous Planners and their Scalability onto Spacecraft Platforms with Limited Energy and Computational Resources," Jagodzinski, Filip, 6 credit hours. (January 2003 - December 2003).

Directed Individual/Independent Study, "Musical Accompaniment Phrase Composition Using Genetic Programming Techniques," Speer, James, 3 credit hours. (January 2003 - July 2003).

Directed Individual/Independent Study, "Comparisons of Projection Algorithms for an Eigenspace-Based Vision System," Schell, Matthew, 3 credit hours. (September 2002 - December 2002).

Directed Individual/Independent Study, "Artificial Neural Networks for Acoustic Signal Recognition," Schrader, Troy, 3 credit hours. (September 2002 - December 2002).

Awards and Honors

Excellence in Entrepreneurship Teaching and Pedagogical Innovation, Global Consortium of Entrepreneurship Centers. (December 1, 2011). Development and implementation of a unique interdisciplinary Mobile Phone Applications course.

RESEARCH

Research Interests

Robotics and Education, Multimedia and Virtual Reality, Artificial Intelligence

Published Books/Chapters

Chapter in Scholarly Book-New

Lesser, V., Nawab, H., Klassner, F. I. (2001). The IPUS Blackboard Architecture as a Framework for Computational Auditory Scene Analysis. In David Rosenthal, Hiroshi Okuno (Eds.), *Computational Auditory Scene Analysis* (0th ed., pp. 105-114). Lawrence Erlbaum Associates, Inc..

Published Articles

Article, Academic Journal

Klassner, F. I. (2012). Mindstorms as an Electronic Tangible Across the Computing Curriculum. *Journal of Computing Sciences in Colleges, 27*(3), 52-64.

Klassner, F. I. (2006). Launching into AI's 'October Sky' with Robotics and Lisp. *AI Magazine, AI Press., 27*(1), 51-65.

Klassner, F. I., Anderson, S. (2003). LEGO MindStorms: Not Just for K-12 Anymore. *IEEE Robotics and Automation Magazine, 10*(2), 12-18.

Lesser, V., Horling, B., Klassner, F. I., Raja, A., Wagner, T., Zhang, S. (2000). BIG: An Agent for Resource-bounded Information Gathering and Decision Making. *Artificial Intelligence, Elsevier Press, 118*(1-2), 197-244.

Lesser, V., Nawab, H., Klassner, F. I. (1995). IPUS: Integrated Processing and Understanding of Signals. *Artificial Intelligence, 77*(1), 1-34.

Paper, Conference Proceeding (peer-reviewed)

Klassner, F. I., Peyton-Jones, J. C., Lehmer, K. (2012). Genetic Algorithms with Lego Mindstorms and Matlab. *Proceedings of the 25th Conference of the Florida Artificial Intelligence Society (FLAIRS)*(25).

Gehlot, V., Way, T. P., Klassner, F. I. (2011). Coexistence of Functional and Object-oriented Paradigms. *The 27th Annual Consortium for Computing Sciences in Colleges - Eastern Conference (CCSCE 2011)*.

Carpenter, T., Doerfler, G., Way, T. P., Klassner, F. I. (2011). An Approach to Maintaining Viewer Perspective in Interactive Virtual Tours. *The 2011 International Conference on Computer Graphics and Virtual Reality (CVGR 2011)*.

McNally, M., Klassner, F. I., Continanza, C. (2007). Exploiting Mindstorms NXT: Mapping and Localization Projects for the AI Course. *Proceedings of FLAIRS-2007 (Florida Artificial Intelligence Research Society Conference), Proceedings of the Twentieth International Florida Artificial Intelligence Research Society Conference*(2007), 315-320.

Klassner, F. I., McNally, M. (2007). Demonstrating the Capabilities of Mindstorms NXT for the AI Curriculum. *AAAI Spring Symposium Series*(2007).

Klassner, F. I., Continanza, C. (2007). Mindstorms Without Robotics: An Alternative for Systems Courses. *Proceedings of 38th SIGCSE Technical Symposium on Computer Science Education (SIGCSE 2007), 39*(1), 175-179.

Klassner, F. I., Jacobs, D., Jorgage, B. (2005). CLUC: A Common Lisp USB Communication Library. *Proceedings of the 2005 International Lisp Conference*, 229-234.

Klassner, F. I. (2004). Enhancing Lisp Instruction with RCXLisp and Robotics. *35th Technical Symposium on Computer Science Education (SIGCSE 2004)*, 214-218.

Klassner, F. I. (2004). A Tool for Integrating Lisp and Robotics in AI Agents Courses. *AAAI 2004 Spring Symposium Series Report*, 24-29.

Klassner, F. I. (2002). Lego Mindstorms and Lisp: Perfect Together?. *Proceedings of the 2002 International Lisp Conference*.

Klassner, F. I. (2002). A Case Study of LEGO Mindstorms Suitability for Artificial Intelligence and Robotics Courses at College Level. *33rd Technical Symposium on Computer Science Education (SIGCSE 2002)*, 8-12.

Klassner, F. I. (2000). Can Web Development Courses Avoid Obsolescence?. *International Conf. on Technology in Computer Science Education*.

Lesser, V., Horling, B., Klassner, F. I., Raja, A., Wagner, T., Zhang, S. (1999). Recent Extensions to BIG: A Resource-Bounded Information Gathering Agent. *AAAI Workshop on Intelligent Information Systems*.

Lesser, V., Horling, B., Klassner, F. I., Raja, A., Wagner, T., Zhang, S. (1998). BIG: A Resource-Bounded Information Gathering Agent. *AAAI*.

Klassner, F. I., Lesser, V., Nawab, H. (1998). The Role of Data Reprocessing in Complex Acoustic Environments. *AAAI*, 997-1003.

Klassner, F. I., Lesser, V., Nawab, H. (1997). Combining Approximate Front End Signal Processing with Selective Reprocessing in Auditory Perception. *AAAI*, 661-667.

Klassner, F. I., Lesser, V., Nawab, H. (1995). The IPUS Blackboard Architecture as a Framework for Computational Auditory Scene Analysis. *International Joint Conference on Artificial Intelligence Workshop on Computational Auditory Scene Analysis*.

Klassner, F. I., Lesser, V., Nawab, H. (1993). Fusing Multiple Reprocessings of Signal Data. *SPIE Proceedings, 2059*.

Lesser, V., Nawab, H., Gallastegi, I., Klassner, F. I. (1993). IPUS: An Architecture for Integrated Signal Processing and Signal Interpretation in Complex Environments. *AAAI*.

Published Other Contributions

New Media

Fahs, C., Klassner, F. I., Wilson, P., Carpenter, T., Doerfler, G., Priece, D. (2010). Vatican Virtual Reality Tour of Sacred Places. *Vatican Website*. Vatican City.

Presentations Given

Invited Lecture (scholarly)

Klassner, F. I. (Presenter & Author), University of Scranton Computer Science Talks, "Genetic Algorithms as Search in Artificial Intelligence Applications," University of Scranton ACM Chapter, Scranton, PA, Local, Academic. (May 11, 2012).

Klassner, F. I. (Presenter & Author), Canisius College Computer Science Lecture Series, "New Robotics Perspectives in Computer Science," Canisius College, Buffalo, NY, Local, Academic. (December 1, 2006).

Klassner, F. I. (Presenter & Author), Technical Symposium on Computer Science Education (SIGCSE 2006), "Do Lego MindStorms Robots Have a Future in CS Education," ACM Special Interest Group on Computer Science Education (SIGCSE), Houston, TX, National, Academic. (March 3, 2006).

Klassner, F. I. (Presenter & Author), SIGCSE 2001, "Experience Reports on Robotics in the CS Curriculum," ACM Special Interest Group on Computer Science Education (SIGCSE), Charlotte, NC, International, Academic. (March 1, 2001).

Klassner, F. I. (Presenter & Author), Funding Talk, "Auditory Scene Analysis, the IPUS Framework, and Sonar Systems," USN Naval Underwater Center, Newport, RI, Local, Professional. (May 20, 1998).

Klassner, F. I. (Presenter & Author), Computational Auditory Scene Analysis Workshop, "The Blackboard Architecture and Its Usefulness in Auditory Scene Analysis," International Joint Conference on Artificial Intelligence, Nagoya, Japan, International, Academic. (August 23, 1997).

Klassner, F. I. (Presenter & Author), "Getting Computers to Listen," Computer Science Department, Westfield State College, Westfield, MA, Local, Academic. (April 30, 1997).

Invited Presentation, Teaching

Kulkarni, S. S. (Presenter & Author), Gehlot, V. (Author Only), Klassner, F. I. (Author Only), Wagner, W. P. (Author Only), VITAL Annual Workshop: Teaching and Learning Strategies at Villanova 2012, "Mobile App Development: A Cross-Discipline Team-Based Approach to Student (and Faculty) Learning," VITAL, Villanova University, Villanova University, Local, Academic. (May 17, 2012).

Klassner, F. I. (Presenter & Author), Immersive Virtual Environments for Villanova, "Immersive Virtual Environments for Villanova," Center of Excellence in Enterprise Technology (CEET), Connelly Center, Local, Academic. (October 29, 2013).

Oral Presentation

Klassner, F. I. (Presenter & Author), Robo Business Leadership Summit 2012, "Cultivating a Robotics Workforce from Computer Science Majors: Seven Years of Lessons," Robotics Trends, Pittsburgh, PA, International, Professional. (October 23, 2012).

Klassner, F. I. (Presenter & Author), AAAI 2010 Spring Symposium Series, "Beyond First Impressions and Fine Farewells: Electronic Tangibles Throughout the Curriculum," Association for the Advancement of Artificial Intelligence (AAAI), Stanford, CA, National, Academic. (March 23, 2010).

Klassner, F. I. (Presenter & Author), Robo Business 2008, "Cultivating a Robotics Workforce from Computer Science Majors: Seven Years of Lessons," Robotics Trends, Pittsburgh, PA, National, Professional. (April 8, 2008).

Klassner, F. I., A Virtual Reality Cave Facility for Villanova, "A Virtual Reality Cave Facility for Villanova," Center of Excellence in Enterprise Technology (CEET), Connelly Center, Local, Academic. (January 15, 2013).

Workshop

Klassner, F. I. (Presenter & Author), CCSC - Midwest Region 2002, "Using Lego MindStorms in the CS Classroom," Computing Consortium for Small Colleges (CCSC), Marion, IN, Regional, Academic. (September 21, 2002).

Contracts, Grants and Sponsored Research

Contract

Funded

Gehlot, Vijay (Co-Principal), Kulkarni, Sarvesh S. (Co-Principal), Klassner, Frank I (Supporting), "CARMMA - Comcast Applied Research for IPv6 Modeling, Migration, and Adoption (Continuation)," Sponsored by Comcast Corporation, Private, $225,000.00.

Funded
Gehlot, Vijay (Co-Principal), Kulkarni, Sarvesh S. (Co-Principal), Nigro, Carmen (Supporting), Klassner, Frank I (Supporting), "CARMMA - Comcast Applied Research for IPv6 Modeling, Migration, and Adoption," Sponsored by Comcast Corporation, Private, $225,000.00. (September 2011 - December 2012).

Funded
Gehlot, Vijay (Principal), Beck, Robert E. (Co-Principal), Klassner, Frank I (Co-Principal), Way, Thomas P. (Co-Principal), "Stake-Holder Asset-based Planning Environment (SHAPE) - CEET and Computing Sciences Contract," Sponsored by Colorado Engineering, Inc. sub-contract from the Department of Defense, Federal, $112,500.00. (February 16, 2009 - February 15, 2011).

Funded
Klassner, Frank I (Project Director), Palkovic, Alex (Supporting), "Investigate & Implement User-Optimized Interface for LSOS," Sponsored by NASA - Jet Propulsion Laboratories (JPL), Federal, $9,850.00. (October 1, 2009 - May 27, 2010).

Funded
Way, Thomas P. (Project Director), Gehlot, Vijay (Co-Principal), Beck, Robert E. (Co-Principal), Joyce, Daniel T. (Co-Principal), Klassner, Frank I (Supporting), Lewis, John (Supporting), "Applied Research in Computing Enterprise Services (ARCES) FA8726-05-C-0008," Sponsored by US Air Force, Federal, $6,000,000.00. (September 2004 - May 2008).

Grant

Funded
Klassner, Frank I (Principal), "Robotics and Simulation for Computer Science Education in the 21st Century," Sponsored by National Science Foundation, Federal, $259,994.00. (September 1, 2010 - Present).

Funded
Beck, Robert E. (Principal), Klassner, Frank I (Co-Principal), "Villanova Computing Scholars (ViCS): The Sequel," Sponsored by National Science Foundation, Federal, $597,973.00. (July 1, 2009 - Present).

Funded
Klassner, Frank I (Principal), Poley, Darren G (Co-Principal), Dougherty, Edmond J. (Co-Principal), Ashrafiuon, Hashem (Supporting), Cassel, Lillian (Supporting), Clayton, Garrett M. (Supporting), Damian, Mirela (Supporting), Folk, Charles L. (Supporting), Fleischer, Amy S. (Supporting), Gehlot, Vijay (Supporting), Goldsmith, Steven T. (Supporting), Jones, Gerard F. (Supporting), Keita, Maghan (Supporting), Kendzierski, Deborah A (Supporting), Park, Seri (Supporting), Traver, Robert G. (Supporting), Wemhoff, Aaron P (Supporting), Wagner, William P. (Supporting), Kraut, Daniel (Supporting), Liberatore, Matthew J. (Supporting), Schick, Joseph T. (Supporting), Stephens, Philip J. (Supporting), "Development of a CAVE for Immersive Research and Learning at Villanova University," Sponsored by NSF, Federal, $1,674,322.00, 0. (October 1, 2013 - October 1, 2017).

Funded
Beck, Robert E., Klassner, Frank I, "Villanova Computing Scholars: A World View," Sponsored by NSF, Federal, $607,652.00. (March 15, 2013 - March 14, 2017).

Stephens, Philip J. (Supporting), Klassner, Frank I (Principal), "Development of a CAVE for Immersive Research and Learning at Villanova University," Sponsored by NSF, Federal. (January 1, 2014 - January 1, 2017).

Not Funded
Klassner, Frank I (Principal), Lucia, Joseph P. (Co-Principal), Dougherty, Edmond J. (Co-Principal), Clayton, Garrett M. (Supporting), Damian, Mirela (Supporting), Folk, Charles L. (Supporting), Keita, Maghan (Supporting), Schick, Joseph T. (Supporting), "Development of a CAVE System for Immersive Video Research, Immersive Learning, and Visualization Support for Research at Villanova," Sponsored by National Science Foundation, Federal, $1,524,509.00, 0. (September 1, 2012 - August 31, 2016).

Funded
Peyton-Jones, James C. (Principal), Klassner, Frank I (Co-Principal), Kulkarni, Sarvesh S. (Co-Principal), Nataraj, C. (Co-Principal), "Introducing undergraduates to complex systems through rapid prototyping of low-cost networked mobile robots," Sponsored by National Science Foundation, Federal, $149,995.00, Donation of 25 Nokia Internet tablets + free technical support. (February 15, 2009 - January 31, 2012).

Peyton-Jones, James C. (Principal), Kulkarni, Sarvesh S. (Co-Principal), Klassner, Frank I (Co-Principal), "Rapid-prototyping of Low-cost, Networked Mobile Robots," Sponsored by The MathWorks, Private, $41,520.00, $15950 Software licenses + technical support. (February 2010 - February 2011).

Peyton-Jones, James C. (Principal), Kulkarni, Sarvesh S. (Co-Principal), Klassner, Frank I (Co-Principal), "Rapid-prototyping of Low-cost, Networked Mobile Robots," Sponsored by The MathWorks, Private, $44,130.00, $15950 Software licenses + technical support. (March 2009 - March 2010).

Funded
Beck, Robert E. (Principal), Klassner, Frank I (Co-Principal), Damian, Mirela (Co-Principal), "Villanova Computing Scholars (ViCS)," Sponsored by National Science Foundation, Federal, $399,550.00. (July 1, 2004 - July 31, 2009).

Funded
Klassner, Frank I (Principal), Lawhead, Pamela (Co-Principal), McNally, Myles (Co-Principal), "LEGO MindStorms - Cost-Effectively Expanding CS Students' Horizons and Enthusiasm Outside the (Desktop) Box," Sponsored by National Science Foundation, Federal, $490,000.00. (August 15, 2003 - August 15, 2007).

Funded
Klassner, Frank I (Principal), "REU Supplement: LEGO MindStorms - Cost-Effectively Expanding CS Students' Horizons and Enthusiasm Outside the (Desktop) Box," Sponsored by National Science Foundation, Federal, $15,000.00. (June 9, 2004 - July 15, 2007).

Funded
Cassel, Lillian (Principal), Soong, Norman L (Co-Principal), Klassner, Frank I (Co-Principal), Wolz, Ursula (Co-Principal), Hardt, Daniel (Co-Principal), "MRI : Web Host Access Tools," Sponsored by National Science Foundation, Federal, $141,959.00. (September 1, 2000 - August 31, 2004).

Funded
Klassner, Frank I (Principal), Anderson, Scott (Co-Principal), "Robotics as a Unifying Theme for Computing Curriculum 2001," Sponsored by National Science Foundation, Federal, $73,401.00. (January 1, 2001 - June 30, 2004).

Funded

Cassel, Lillian (Principal), Soong, Norman L (Co-Principal), Klassner, Frank I (Co-Principal), Wolz, Ursula (Co-Principal), Hardt, Daniel (Co-Principal), "MRI : Web Host Access Tools (REU : Supplement)," Sponsored by National Science Foundation, Federal, $32,000.00. (January 1, 2001 - July 31, 2003).

Funded

Klassner, Frank I (Principal), "LEGO MindStorms as a Complementary Pedagogic Platform for the Villanova and National Computing Curriculum," Sponsored by VITAL Minigrant, Villanova University, $3,000.00. (2001).

Funded

Klassner, Frank I (Principal), "Development Donation for LEGO MindStorms Laboratory," Sponsored by Jeannie Roberts, Private, $7,200.00. (August 1, 1999 - July 31, 2001).

Funded

Klassner, Frank I (Principal), "Artificial Intelligence: A Robotic Approach," Sponsored by VITAL Minigrant, Villanova University, $3,000.00. (1999).

Sponsored Research

Funded

Gehlot, Vijay (Project Director), Klassner, Frank I (Supporting), "Process Design and Analysis using Colored Petri Nets," Sponsored by BioInventors & Entrepreneurs Network (BIEN), Private, $15,000.00. (July 2011 - September 2011).

Awards and Honors

Member, Sigma Xi Research Honor Society. (April 2004).

Honorable Mention, NSF Graduate Fellowship Program, National Science foundation. (May 1990).

Member, Alpha Sigma Nu National Jesuit Honor Society. (May 1987). National Jesuit Honor Society

Member, Chapter President, Upsilon Pi Epsilon Computer Science Honor Society. (May 1987).

Presidential Scholar, University of Scranton. (September 1, 1984). Full scholarship to University of Scranton undergraduate program.

Research in Progress

Research and Artistic Work Currently in Progress

Dolan, N. E., Klassner, F. I., Garcia, V., Heller, J., Jiang, X., "Augustine's Confessions App", On-Going, Scholarly.

Peyton-Jones, J. C., Kulkarni, S. S., Klassner, F. I., Nataraj, C., Lehmer, K., Vuono, V., "Introducing Undergraduates to Complex Systems through Rapid-prototyping of Low-cost, Networked Mobile Robots", On-Going, Scholarly.

Klassner, F. I., Jain, A., Palkovic, A. J., Clifton, T., Young, T., "Robotics and Simulation for Computer Science Education in the 21st Century", On-Going, Scholarly.

Fahs, C., Klassner, F. I., Wilson, P., Carpenter, T., Doerfler, G., Priece, D., "Vatican Virtual Reality Tour of Sacred Places", On-Going, Scholarly.

Beck, R. E., Klassner, F. I., "Villanova Computing Scholars: The Sequel", On-Going.

Article

Kulkarni, S. S., Gehlot, V., Klassner, F. I., Wagner, W. P., Dougherty, E. J., Metzger, S. Mobile App Development: A Cross-Discipline Team-Based Approach to Student and Faculty Learning. *American Society for Engineering Education (ASEE)*.

SERVICE

Department/Center/Program Committees

Committee Member, Outreach Committee, Appointed. (September 2006 - Present). The committee is responsible for promoting the achievements of the computing sciences students and faculty. The committee publishes the department's biannual newsletter.

Committee Member, Villanova Computing Scholars Management Committee, not elected or appointed. (September 2004 - Present). In this committee and as an instructor in the CSC 1990 Career Development Seminar I am helping spearhead three department efforts: increase undergraduate students' interest in research work; increase undergraduate students' comfort with reading technical literature; increase undergraduate students' rate of application to prestigious scholarships, award programs, and internship programs. The committee is responsible for awarding NSF-sponsored ViCS scholarships to computer science majors.

Committee Member, Undergraduate Curriculum Committee, Appointed. (September 2002 - May 2011).

Department/Center/Program Activities

Student Recruiter. (January 2003 - Present). Organized a calling program for recruiting admitted students to choose to go to Villanova to study computer science. My share of calling involved between 30 and 80 students during the season (January 10 to April 30).

Student Org Advisor (professional org). (September 1998 - May 2011). Coach for Department Programming Teams. In November 2008, November 2009, and November 2010, the teams I coached placed 2nd, 2nd, and 1st, respectively, in the site competitions they attended in the ACM Mid-Atlantic regional competition.

College Committees

Committee Member, CPE-CSC Liaison Curriculum Committee, Appointed. (September 1998 - May 2011).

Committee Member, Mendel Science Building Manager Hiring Committee, Appointed. (September 2006 - October 2006).

University Committees

Committee Member, University Mobile App Review Committee, Appointed. (September 2012 - Present). Our task is to review mobile app designs from VU faculty, VU staff, or VU students

for publication under the Villanova brand. The review examines the user interface quality and the technical support requirements (including security, content hosting, etc) that the app will require from Villanova.

Committee Member, Academic Policy Committee - University Senate, Elected. (September 2003 - September 2007).

Committee Chair, Faculty Congress Elections and Credentials Committee, Appointed. (September 2003 - September 2007). Conducts University-wide elections for Faculty Congress, University Senate, and University Rank and Tenure Committee

University Activities

University Senate Service. (September 2003 - May 2007).

Professional Organizations/Committees/Clubs

LEGO Education Advisory Panel, Board of Advisors of a Company. (April 1, 2012 - Present). After a competitive application process, 27 educators from across the United States were selected out of 1300 applications for the LEGO Education Advisory Panel. These educators represent grades K-12 and college, and will collaborate with LEGO Education to develop classroom solutions and curriculum that elevate science, technology, engineering and math (STEM) concepts and 21st century learning skills.

Consortium for Computing Science in Colleges (CCSC) East Conference Committee, Committee Member. (April 2008 - October 2009). Recruit and Coordinate Vendors at the Conference

Net-Centric Validation Conference, Workshop Organizer. (September 27, 2007 - September 28, 2007). This CEET-hosted conference brought together Defense Department representatives, researchers, and industry managers to present papers on the utility of Modeling and Simulation techniques to the test, evaluation and acquisition of net-centric DoD systems. The keynote address was delivered by Keith Seaman, Chief Information Officer of the US Air Force. The conference was attended by over 50 representatives from defense companies and government agencies.

DARPA Mindstormers Discussion Group, Discussant. (June 2006 - July 2006). This was an invitation-only national online study conducted by SET Associates for the Defense Advanced Research Program Agency. Its purpose was to formulate design parameters for LEGO-like robot systems for the US Air Force.

Computational Auditory Scene Analysis Workshop, Workshop Organizer. (December 1998 - August 1999). Worked with Hiroshi Okuno to organize a Computational Auditory Scene Analysis workshop at the 1999 International Joint Conference on Artificial Intelligence (IJCAI-99). 25 Attendees and paper presentations to coordinate.

Computational Auditory Scene Analysis Workshop, Committee Member. (December 1996 - August 1997).

Editorial/Review Activities

Reviewer, Conference Paper, FLAIRS Proceedings, Florida Artificial Intelligence Research Society (FLAIRS). (October 2006 - Present). Paper Reviewer for Special Track on Artificial Intelligence Education.

Reviewer, Conference Paper, SIGCSE Proceedings, ACM Special Interest Group on Computer Science Education. (September 2000 - Present). Review papers in artificial intelligence, robotics, programming languages, systems, and multimedia. Each year I review an average of 5 papers for the conference.

Reviewer, Grant Proposal (external), Research Experiences for Undergraduates (REU), National Science Foundation. (November 2013). Invited to review a proposal ad hoc.

Reviewer, Grant Proposal (external), National Robotics Initiative, National Science Foundation. (March 2013). Member of panel that reviewed 18 proposals.

Reviewer, Grant Proposal (external), National Robotics Initiative, National Science Foundation. (February 2012). Member of panel that reviewed 24 proposals.

Reviewer, Grant Proposal (external), NSF ITEST Program, National Science Foundation. (June 2011). Reviewer of 14 proposals in a 24-proposal set reviewed by a panel.

Reviewer, Faculty Member (external), Wake Forest University. (2010). Review a computer science faculty member for promotion to associate professor and tenure.

Reviewer, Student (external), LispNYC student Lisp proposals, Google Summer of Code. (May 2005 - May 2007). Reviewed student proposals for summer open-source projects to be performed for the LispNYC organization under the Google Summer of Code program. Accepted students received a $5000 stipend from Google for successful completion of their project. Served 3 times.

Associate Editor, Journal of Educational Resources in Computing (JERIC), Association for Computing Machinery. (August 2003 - September 2006). Reviewed journal-length articles on robotics and programming language-area topics.

Reviewer, Grant Proposal (external), DUE directorate, National Science Foundation. (November 2004). Reviewer of 14 proposals in a 25-proposal set reviewed by a panel.

Reviewer, Grant Proposal (external), CISE directorate, National Science Foundation. (November 2002). Reviewer of 10 proposals in a 28-proposal set reviewed by a panel.

Reviewer, Conference Paper, Innovation and Technology in Computer Science Education (ITICSE) Conference 2000. (December 1999). Reviewed 4 papers.

Public Service

Member of 2010 National Jamboree Website Committee, Boy Scouts of America, Fort A.P. Hill, Virginia. (July 24, 2010 - August 4, 2010). Deploy and maintain bsajamboree.org national website I demonstrated Villanova's new immersive video camera's use at the Jamboree, and posted videos from the camera on the jamboree website. 35,000 attending youth and their families saw the material. This publication led to work with the Florida Virtual School (100,000 students, 900 faculty) on an immersive video series at the Gettysburg National Park for their K-12 History courses.

Consulting

For Profit Organization, CS Cubed Group, LLC. (February 2005). Hired to advise on improving an NSF robotics-oriented grant proposal from a Research-1 institution