

Please initiate contact through email.

KEITH A. PRAY

<http://keithpray.net/>
kap@alum.wpi.edu

- OBJECTIVE** To lead meaningful, marketable computer science research and software development team projects. Interests include artificial intelligence, machine learning, data mining, expert systems, and knowledge dissemination.
- EXPERIENCE** **Lead Software Engineer, BAE Systems, AIT** - Burlington, MA: 09/2004 – present
Provide technical leadership in 20+ person teams building planning and control software. Roles include chief architect, requirement analysis, algorithm design, preliminary and detailed software design, implementation, testing, facilitation of technical product reviews, assigning work to individuals, estimation of schedule and technical product size, end of phase coordination, in a CMMI Level 3 environment. Noted by customer and management for excelling in solving technical problems, communication, document generation, and developing new skills as needed.
- Adjunct Instructor, Worcester Polytechnic Institute (WPI), CS Department** - Worcester, MA: 05/2004 – present
Courses: [CS 525W Web Ware](#), [CS 3043 Social Implications Of Information Processing](#).
- Research Scientist / Engineer, Bioengineering Institute (BEI), WPI**: 09/2002 – 08/2004
Pursued patents and cultivated business opportunities for my data model and user interface technologies. Produced visualizations of wireless network routing simulations in 3D space for Troop Monitoring in [CUTH](#).
- Research Assistant, Center For Research In Exploratory Data And Information Analysis, WPI**: 09/2002 - 12/2002
Conducted research for project funding proposals and preparation for conferences. Created and maintained website.
- Geo. I. Alden Fellow, BEI, WPI**: 02/2002 - 09/2002
Presented MA Norfolk County Sheriff's Office technology plan and new data model and user interface technologies.
- Design Engineer / Performance Analyst, EMC Corporation** - Hopkinton, MA: 06/1998 - 10/2001
Characterized and optimized EMC Data Manager (EDM) performance. Realized twentyfold increase of productivity through creation of processes and automated tools. Managed release of all performance documents. Set standards for non-obtrusive metric measurement. Provided engineering support to field.
Authored EDM performance test reports and white papers. Created document repository and web site for sales and field engineers. Initiated and directed Continuous Improvement effort of EDM Performance Group. Realized twofold increase of productivity by defining knowledge dissemination, testing and documentation processes.
Created EDM Configurator; an expert system for predicting backup/restore performance.
- Software Engineer, Scope Communications** - Marlborough, MA: 1997 - 1998
Designed and implemented intelligent Java GUI components and product prototypes.
- Software Consultant, 3Com** - Marlborough, MA: Summer 1996 - Implemented a manufacturing quality database.
- TECHNICAL** **Languages:** [Java](#), JSP, C++, C, Prolog, Scheme/LISP, LaTeX, XML, HTML, SSI, Assembly, Pascal, Basic
Operating Systems: UNIX, Linux, BSD, Mac OS X, Win NT/95/98/2000
Other Tools: Eclipse, ClearCase, Rose, [Weka](#), [Emacs](#), [Java SDK](#), [Tomcat](#), [Apache](#), MS Office
- EDUCATION** **Ph. D. in Computer Science**, Worcester Polytechnic Institute - Worcester, MA – In Progress
Interest: Automatic defining of events of interest in time sequence data.
- Master of Science in Computer Science**, Worcester Polytechnic Institute - Worcester, MA - 2004
Master's Thesis: Apriori Sets And Sequences: Mining Association Rules from Time Sequence Attributes
Publication: [Mining Expressive Temporal Associations from Complex Data](#), Machine Learning and Data Mining in Pattern Recognition: 4th International Conference, MLDM 2005, Leipzig, Germany, July 9-11, 2005. Proceedings.
Other Interests: [Machine Learning](#), [AI in Design](#), Randomized Algorithms, Complex System Analysis, Performance
- Bachelor of Science in Computer Science**, Worcester Polytechnic Institute - Worcester, MA - 1998 [High Distinction](#)
Projects: MQP: The Pool Critic - A vision enabled computer system capable of verifying completion of called shots;
IQP: Time Commitments of the WPI Student; Sufficiency: Technology, Perception & Art
Other Interests: HCI, [Animation](#), Computer Vision, Graph Theory, Combinatorics, Psychology, Perception, Physics
- Professional Training:** EMC University: Comprehensive Introduction to Fibre Channel, Effective Hiring, Continuous Improvement Coaching, Facilitation; BAE Systems: CMMI Level 3 Software Process, Train The Trainer
- HONORS AND SERVICE** WPI Class Board of Directors Chair 1998-present, [Mass Alpha UPE](#) President 2002-2004, VP 1998, Geo. I. Alden Fellowship 2002, [ACM](#) 1996-present, [WPI ACM](#) President 1996-1999, [WPI Social Committee](#) VP 1996-1997