

**Keith E. Maull, Ph.D.**

RESEARCH  
INTERESTS

Data science (software, analytics, visualization); data mining, web analytics and informatics, educational data mining; statistical and machine learning techniques in educational data mining contexts; models, methods and algorithms for analyzing and characterizing the impact of scholarly output and impact.

EDUCATION

**University of Colorado**, Boulder, CO

Ph.D. Computer Science, August 2013

- Dissertation Committee : Tamara Sumner (Chair), Jim Martin, Qin Christine Lv, Ed Freeman, Kai Larsen
- Dissertation Title : *Computational Methods for Analyzing and Understanding Online Curriculum Planning Behavior of Teachers*
- Research Focus : Educational data mining and educational informatics

M.S. Computer Science, December 2007

- Thesis Advisor : Tamara Sumner
- Thesis : *A Model and Architecture for Composing Digital Learning Resources : The Teaching Box Project*

**Indiana University**, Bloomington, IN

B.A. Computer Science, May 1995

ACADEMIC  
EXPERIENCE

**Southern Arkansas University**, Magnolia, AK

*Adjunct Instructor*

**Spring 2016**

**MCIS6183 Special Topics: Data Mining**

- Co-taught graduate online data mining course.
- Supervised, evaluated and graded student projects.
- Developed supplemental resources and materials for class topics.

**University Corporation for Atmospheric Science (UCAR)**, Boulder, CO

*Co-Principal Investigator*

**10/2014-09/2016**

**NSF EAGER Award #ACI-1448480 / 2014-0566 / \$281,718**

*Tracing the Use of Research Resources Using Persistent Citable Identifiers*

- Investigating computational techniques for tracing persistent object identifiers in scholarly literature using text mining and classification techniques.

*Project Software Engineer*

**09/2014-09/2016**

**NSF EarthCube Building Blocks #1440293, #1440181, #1440213 / \$1,779,018**

**(Collaborative)**

*Enabling Scientific Collaboration and Discovery through Semantic Connections*

- Contributing software expertise to semantic web application development for connecting various geoscience data from projects, people, data, scholarly publications and other artifacts.

**University of Colorado**, Boulder, CO

*Professional Research Assistant*

**12/2008-6/2013**

- Performed on-going research in educational data mining with specific focus on teachers' online behavior.

- Led efforts to develop strategic direction for recommender system technology adoption and use within the NSDL-TNS platform.
- Performed group management functions including : research team meeting scheduling and organization, financial purchasing duties for group purchases, including equipment purchases, conference registration fees and other essential group purchasing functions, technical maintenance and tasks including group server maintenance, software and hardware upgrades.

**GLOBE (Global Learning and Observations to Benefit the Environment)**, Boulder, CO  
*Visiting Researcher* **10/2010-06/2013**

- **NSF Award #0929725:** *From Learning to Research: Developing Future Earth System Scientists and Professionals*
- Investigated secondary Earth science educators' professional development, online planning and social networking behavior using web and data mining methods.

*Visiting Researcher* **01/2008-06/2013**

- **NSF Award #1118392:** *Collaborative Research: Overcoming Obstacles to Scaling-Up with a Cyberlearning Professional Development Model*; **NSF Award #1043638:** *Collaborative Project: Understanding Impact: A Scaling and Replication Study of the Curriculum Customization Service*; **NSF Award #0734875:** *Collaborative Project: The NSDL Curriculum Customization Service*; **NSF Award #0840744:** *NSDL Technical Network Services: A Cyberinfrastructure Platform for STEM Education*
- Investigated secondary Earth science educators' instructional planning behavior using web and data mining methods.

**Carnegie Mellon University**, Pittsburgh, PA  
*Pittsburgh Science of Learning Center Summer School* **July 12-16, 2010**

- Participated in educational data mining team to study the effects of personalization on learning gains in middle school students' use of an intelligent tutoring system.
- Developed analysis and interpretation tools to understand the data.

PROFESSIONAL  
SERVICE

**Reviewer**

PeerJ / Computer Science  
 IEEE Transactions on Emerging Topics in Computing  
 National Science Foundation (NSF) grant proposal review panelist (2014, 2015)  
 12th IEEE on Machine Learning and Applications (*Special session on Machine Learning for Predictive Models*)  
 Educational Data Mining: Applications and Trends (Book)  
 ACM/SIGCHI Conference on Designing Interactive Systems  
 ACM/IEEE Joint Conference on Digital Libraries  
 Educational Recommender Systems and Technologies (ERSAT): Practices and Challenges (Book)

*Sheridan Middle School / Sheridan Public School District*, Sheridan, CO  
**Content Specialist** **7/2011**

- Provided robotics programming content expertise to middle school STEM summer school enrichment program teachers.
- Developed week long robotics programming module for middle school students to gain access to and familiarity with basic robotics and programming concepts using the LEGO Mindstorm robotics kit.

- Collaborated with middle school math, reading and writing teachers to develop cohesive content delivery and appropriate classroom activities.

*National Science Digital Library 2009 Annual Meeting*, Washington, D.C.

**Panel Organizer**

**11/16-11/19, 2009**

Recommender Systems, Contextualization and Personalization in NSDL : Current and Future Research Directions.

- Developed, organized, planned and submitted panel topic and agenda.
- Participated in panel discussion during conference panel event.

BOOK CHAPTERS

Saldivar, M.G., **Mauil, K. E.**, Kirshner, B. R., Sumner, T. R., A Two-Dimensional Framework for Evaluating Teachers' Technology Adoption, In M. Orey, et. al. (Eds.) *Educational Media and Technology Yearbook*, Vol. 36, New York : Springer, 2012.

Okoye, I., **Mauil, K. E.**, Foster, J., Sumner, T. R., Educational Recommendation in an Informal Intentional Learning System, In O. C. Santos, J. G. Boticario (Eds.) *Educational Recommender Systems and Technologies : Practices and Challenges*, Hershey, Pennsylvania : IGI Global, 2012.

POSTERS, TALKS,  
INVITED  
PRESENTATIONS &  
PUBLICATIONS

Mayernik, M. S., Ramey, M., **Mauil, K.** (2016). Measuring Impact at NCAR: Bibliometrics and Beyond [Panel]. *American Meteorological Society (AMS) 19th Conference of Atmospheric Science Librarians (ASLI) 2016*: New Orleans, LA, Jan 9-11, 2016.

Mayernik, M., Khan, K., Corson-Rikert, Krafft. D. B., Johns, E., J., Daniels, M., Gross, M. B., Rowan, L., Boler, F., **Mauil, K.**, Stott, D., Williams, S., (2015). Using VIVO to Enhance Discovery of Geoscience Research via the Semantic Web [Poster]. *Earth Science Information Partners (ESIP) Winter Meeting 2016*: Washington, D.C., Jan 6-8, 2016.

**Mauil, K.**, Mayernik, M. S., Hart, D. L. (2015). Identifying and Tracing Persistent Identifiers of Research Resources: Automation, Metrics and Analysis [Poster]. *American Geophysical Union (AGU) Fall Meeting 2015*: San Francisco, CA, Dec 14-18, 2015.

Johns, E., Mayernik, M., Boler, F., Corson-Rikert, J., Daniels, M., Gross, M. B., Khan, K., **Mauil, K.**, Rowan, L., Stott, D., Williams, S., Krafft. D. B. (2015). Enlisting User Community Perspectives to Inform Development of a Semantic Web Application for Discovery of Cross-Institutional Research Information and Data [Poster]. *American Geophysical Union (AGU) Fall Meeting 2015*: San Francisco, CA, Dec 14-18, 2015.

Mayernik, M., Gross, M. B., Daniels, M., Rowan, L., Stott, D., **Mauil, K.**, Khan, H., Corson-Rikert, J. (2015). Ontology Reuse in Geoscience Semantic Applications [Talk]. *American Geophysical Union (AGU) Fall Meeting 2015*: San Francisco, CA, Dec 14-18, 2015.

Gross, M. B., Mayernik, M., Rowan, L., Khan, K., Boler, F., **Mauil, K.**, Stott, D., Williams, S., Corson-Rikert, J., Johns, E., Daniels, M., Krafft. D. B. (2015). Progress connecting multi-disciplinary geoscience communities through the VIVO semantic web application [Poster]. *American Geophysical Union (AGU) Fall Meeting 2015*: San Francisco, CA, Dec 14-18, 2015.

McKoy, J., Wiednmyer, C., Hannigan, M., **Mauil, K.**, Dickenson, K., Rivera, I., Coffey, E., Muvandinwe, D., Piedrahita, R., Dukic, V., Cecil-Hagar, Y. (2015). Methodologies for examining air pollution in Northern Ghana. UCAR/NCAR SOARS Abstracts 2015: Boulder, CO.

Scott, B., Orlando, J., Lee-Taylor, J., Drews, C., **Mauil, K.**, Hornbrook, R., Adams, R. (2014). Utilizing portable air quality monitors to assess the patterns of ozone along the Northern Front Range. UCAR/NCAR SOARS Abstracts 2014: Boulder, CO.

**Mauil, K.**, Saldivar, M.G. (2010). Teachers' Curriculum Planning Behavior : Preliminary Research Results and an NSDL Perspective (Talk). *National Science Digital Library Annual Meeting (NSDL 2010)*: Washington D.C., November 1-3, 2010.

Saldivar, M.G., **Maul, K.**, Sumner, T.R., Kirshner, B.R. (2010). A Two-Dimensional Framework for Evaluating Teacher's Technology Adoption (Poster). *National Science Digital Library Annual Meeting (NSDL 2010)*: Washington D.C., November 1-3, 2010.

Walkington, C., **Maul, K.** (2010). The Impact of Personalization on Performance. PSLC 2010 Final Research Report Presentation. *Pittsburgh Science of Learning Center Summer School*, Pittsburgh, PA, July 12-18, 2010.

**Maul, K.**, Saldivar, M.G., Sumner, T., Observing the Online Behavior of Teachers : From Internet Usage to Personalization for Pedagogical Practice (Workshop Paper). *CHI 2010*: Atlanta, GA, April 10-15, 2010.

Ostwald, J., **Maul, K.**, Roby, M., Colati, J., Sumner, T., Wright, M. (2009). Managing Primary Content With NDR's EduPak Component (Poster). *National Science Digital Library Annual Meeting (NSDL 2009)*: Washington D.C., November 16-19, 2009.

PEER-REVIEWED  
PUBLICATIONS

Mayernik, M., Hart, D. L., **Maul, K. E.**, Weber, N. M. Assessing and Tracing the Outcomes and Impact of Research Infrastructures. *Journal of the American Society for Information Science and Technology*. Accepted, publication to appear Spring 2016.

Dibie, O., **Maul, K.**, Sumner, T., A Computational Approach to Understanding and Predicting the Behavior of Educators Using an Online Curriculum Planning Tool, *ACM/IEEE Joint Conference on Digital Libraries (JCDL 2014)*: United Kingdom, London, September 8-12, 2014.

**Maul, K.**, Sumner, T., Toward Predicting Test Score Gains With Online Behavior Data of Teachers, D'Mello, S. K., Calvo, R. A., and Olney, A. (eds.) *Proceedings of the 6th International Conference on Educational Data Mining*, pp. 332-333, 2013.

Dibie, O., **Maul, K.**, Sumner, T., Teacher Sociality and Information Diffusion in Educational Digital Libraries, *ACM/IEEE Joint Conference on Digital Libraries (JCDL 2012)*: Washington, D.C., June 10-14, 2012.

Walkington, C. A., **Maul, K.**, Exploring the Assistance Dilemma: The Case of Context Personalization, In L. Carlson, C. Hölscher, & T. Shipley (Eds.), *Proceedings of the 33rd Annual Conference of the Cognitive Science Society*, July 20-23, 2011, Boston, MA: Cognitive Science Society. *Nominated for IES "Education and Student" Paper Award.*

**Maul, K.**, Saldivar, M.G., Sumner, T., Understanding Digital Library Adoption : A Use Diffusion Approach, *ACM/IEEE Joint Conference on Digital Libraries (JCDL 2011)*: Ottawa, Ontario, June 13-17, 2011. *Runner-up Best Student Paper Award.*

**Maul, K.**, Saldivar, M.G., Sumner, T., Online Curriculum Planning Behavior of Teachers, *Educational Data Mining 2010*: Pittsburgh, PA, June 11-13, pp. 121-130. *Nominated for Best Paper Award.*

Sumner, T., **The CCS Team**, Customizing Science Instruction with Educational Digital Libraries, *ACM/IEEE Joint Conference on Digital Libraries (JCDL 2010)*: Brisbane, Australia, June 21-25, 2010.

Butcher, K. R., Sumner, T., **Maul, K.**, and Okoye, I., Conceptual Personalization Technology: Promoting Effective Self-directed, Online Learning, *ITS 2010*: Pittsburgh, PA, June 14-18, 2010.

Okoye, I., **Maul, K.**, Algorithms for Robust Knowledge Extraction in Learning Environments (Young Researchers Track), *ITS 2010*: Pittsburgh, PA, June 14-18, 2010.

de la Chica, S., Ahmad, F., Gu, Q., Okoye, I., **Maul, K.**, Sumner, T., and Butcher, K. (2009). A Personalized Learning Environment (Poster). *ACM/IEEE Joint Conference on Digital Libraries (JCDL 2009)*: Austin, Texas, June 15-19, 2009, pp. 369-370.

Khan, H. J., **Mauil, K.** and Sumner, T., Curriculum Overlay Model for Embedding Digital Resources, *Proc. of the 8th ACM/IEEE Joint Conference on Digital Libraries '08*, ACM Press, 2008, pp. 74-84.

Khan, H. J. and **Mauil, K.** Realizing the Role of Digital Repositories in Educational Applications: Supporting Content and Context. *Open Repositories 2007*, San Antonio, TX.

Khan, H. J. and **Mauil, K.** Teaching Box Builder: Customizing Pedagogical Contexts for Use of Digital Library Resources in Classrooms. *Proc. of ACM/IEEE Joint Conference on Digital Libraries '06*, ACM Press, 2006.

Khan, H. J. and **Mauil, K.** Teaching Boxes: Customizable Contextualized Digital Resources. *Proc. of World Conference on Education, Multimedia & Telecommunications 2006*, Orlando, FL: AACE.

#### JOURNAL PUBLICATIONS

Malmberg, J. S., **Mauil, K. E.**, Supporting Climate Science Research With 21st Century Technologies and a Virtual Student Conference for Upper Elementary to High School Students, *LEARNLandscapes Journal*, (2013), 6(2), 249-264.

**Mauil, K. E.**, Saldivar, M.G. and Sumner, T. R., Automated Approaches to Characterizing Educational Digital Library Usage : Linking Computational Methodologies with Qualitative Analyses. *International Journal of Digital Libraries* (2012), 13(1), 51-64.

Dean, R., Colati, J., **Mauil, K.**, Describing Digital Objects : A Tale of Compromises, *Cataloging and Classification Quarterly* (2009), 47(3), 326-369.

#### HONORS & AWARDS

Open Repositories Conference Developer Challenge Winner for CTRLCALTTABCTRLV application (Team members included Julie Allinson and Joonas Kesäniemi / Univ. Helsinki) [June 2014]

Outstanding Graduate Research Award [2012], CU Dept. of Computer Science, \$250

ACM/IEEE Student Travel Award [2011], \$837.91

College of Engineering Fellowship [2007-2008], \$3000

University Fellowship [2007-2008], \$2000

Diversity Fellowship [2007-2008], \$2500

#### MENTORING & VOLUNTEERING ACTIVITIES

I believe in mentoring as a professional growth activity and I have been fortunate enough in the recent past to participate in the technical and research development of several undergraduate and graduate students. In doing so, I have also been actively engaged in skills training and transfer through the undergraduate research programs at UCAR and the University of Colorado.

##### **Graduate Mentor**

- Present : mentoring PhD student conducting research in social network algorithms for understanding digital resource utilization by teachers in formal educational contexts.
- Fall 2012-13 : mentored Computer Science MS student through initial thesis research formulation through thesis design, execution and defense.
- Fall 2011 : mentored MS student through initial transition from Math department to Computer Science.
- 2011-2012 : mentored 2nd year PhD student through basic research activities and preliminary examination preparation.

##### **Undergraduate Mentor**

- 2014, 2015 : NCAR SOARS (*National Center for Atmospheric Research Significant Opportunities in Atmospheric Research and Science*) Undergraduate Research Program
  - Served as computing mentor to undergraduate protégés developing analysis tools for mobile air quality data collection platform (2014) and analyzing Chinese air quality data in atmospheric chemistry models with Python statistical tools (2015).
- 2009-2012 : University of Colorado, Boulder SMART (*Summer Multicultural Access to Research Training*) Program
  - Designed, developed and maintained final paper online submission website (2009-2012).
  - Mentored undergraduate students in computer science. Activities included meeting with students about their research projects and providing support to them through their summer research training experiences.
  - Performed workshop on “Scientific Writing With L<sup>A</sup>T<sub>E</sub>X” (2009,2010,2012).
  - Performed workshop on “Basic Research Methods and Strategies” (2011,2012).
  - **Mentored Student Highlights:**
    - Jesse Harris* - currently working as a systems security engineer at Lockheed Martin Aeronautics/Dallas.
    - Skye Chandler* - currently working as a systems analyst at J.P. Morgan Chase/Dallas.
    - Jasmine Jones* - attending graduate school (Fall 2012) at the University of Michigan, Ann Arbor in Human Computer Interaction (HCI).

#### Student Volunteer

- 2009 : NAACL HLT Conference (*North American Chapter of the Association for Computational Linguistics - Human Language Technologies*), Boulder, CO
  - Assisted with daily conference activities including meal distribution, A/V setups, speaker and room preparations and conference signage.

#### TECHNICAL SUMMARY

I prefer lightweight, minimalist tool stacks and software design to over-engineered and overly complex solutions. My general philosophy is that simple tools and simple designs, yield simpler maintenance, rapid development opportunities and more efficient technology transfers.

<i>Software Tools</i>	Aptana Studio, IntelliJ, PyCharm, NetBeans, Eclipse, *Unit, Selenium HQ, SVN, CVS, Git, L <sup>A</sup> T <sub>E</sub> X
<i>Operating Systems</i>	Linux, FreeBSD, MS Windows XP/Vista/7
<i>Languages</i>	<b>Highly Proficient:</b> Python, Java <b>Proficient:</b> RDF/N3/Turtle, UML/OOAD, XSLT, XML, SQL (MySQL/SQLite), HTML <b>Familiarity:</b> OWL, SPARQL, C/C++, Javascript, CSS, PHP, JSP/Servlets, Processing, R, Octave, C#, Delphi, *nix shell scripting including AWK, SED, Perl
<i>Advanced Skills</i>	Agile software methodologies, object-oriented software development, server-side web development, small-medium scale database development, open source development technologies, software engineering lifecycle, web services technologies including REST/SOAP APIs
<i>Additional Skills</i>	Semantic Web Technologies, Digital library development, deployment and maintenance including data ingest, maintenance and metadata interoperability standards (OAI-PMH, Dublin Core, MODS, MARC/XML)

PROFESSIONAL  
WORK EXPERIENCE

I have a diverse set of professional work experiences which have led me from large corporate environments to small startups and non-profits. These wide range of experiences have given me technical, tactical and strategic insights from the development team level to the organizational level.

**University Corporation for Atmospheric Research / National Center for Atmospheric Research (UCAR/NCAR), Boulder, CO**

NCAR Library / Integrated Information Services

*Library Analytics & Repository Engineer*

**6/2013-present**

- Technical lead and consultant on repository transition to Islandora digital repository platform.
- Performed proposal writing and basic research.
- Contributed advanced software development skills to several research projects.
- Led data mining and metrics analytics efforts to develop and deploy tools and techniques to understand the scholarly impact of NCAR scholarship in the OpenSky repository.

**Richard N. Katz & Associates, Boulder, CO**

*Consultant*

**8/2011**

- Led software implementation of data extraction project to examine digital object usage characteristics of a large academic digital repository.
- Successfully delivered data products, which guided digital repository recommendations and decisions.

**Colorado Alliance of Research Libraries, Denver, CO**

*Lead Software Engineer*

**12/2006-12/2008**

- Led software development, implementation, architecture and integration efforts to design, develop, deploy and support Colorado's first consortial institutional repository which included 10 research and 1 public libraries in Colorado and Wyoming.
- Developed, maintained and tested the first open content Alliance digital repository based on FEDORA and Fez, that included initial content contributions of over 100,000 digital objects.
- Contributed source code to the open-source repository tool Fez - the Alliance Digital Repository front-end interface.
- Developed numerous custom tools for the extraction, transformation, indexing and deposition of XML-based content into the repository, including binary data which were part of the large digital image contributions of various members.

**University Corporation for Atmospheric Sciences, Boulder, CO**

DLESE (Digital Library for Earth Systems Education) / NSDL-TNS (National Science Digital Library-Technical Network Services)

*Research Software Engineer*

**08/2006-12/2006**

- Led research, design and implementation of Java-based code for FEDORA digital repository implementation of NSDL/DLESE digital object data model.
- Collaborated with Cornell-based team on DLESE code refactoring and implementation details related to the NDR-API which the implementation was based upon.

**Webroot Software, Boulder, CO**

Spysweeper™ Enterprise Group

*Sr. Software Developer - Enterprise*

**07/2004-08/2006**

- Designed, implemented and maintained Bindows/AJAX client-side and Java-based server-side code for SpySweeper functionality for customer updates, license status, remote client deployment and service status functionality.
- Designed, developed and maintained server-side Delphi code interacting with Webroot update services.
- Maintained and expanded system functionality for both server-side PHP and customer-side Delphi, including MySQL database for storing update logs and entries.
- Responsible for releasing updates and ensuring update database and scripts were tested and operational.
- Responsible for developing highly successful corporate and stealth spy audit web tool for assigning, storing and viewing results of spy audits, resulting in over 30,000 audits in the first four months of operation.
- Designed, developed, implemented and tested Delphi-to-Java adapters to leverage existing Delphi code for Java-based web console, including Java JNI and Delphi wrapper DLLs, resulting in reuse of nearly the entire existing Delphi code base.

**Schwan's Company**, Lakewood, CO

Explore Information Services / Schwan's Technology Group

*Software Engineering Consultant / Contractor*

**09/2003-07/2004**

- Expanded system functionality by designing, implementing and testing Cold Fusion client-side enhancements to State of Colorado web-based Fuel Tax filing and auditing system.
- Decreased development time through converting existing file-based storage mechanisms to real-time database storage.
- Improved site usability through client-side enhancements for form and data validation.
- Reduced client workload by designing Java-based standalone application to generate reports for state commercial license address discrepancies.
- Improved HTML-based help system by redesigning existing system to provide for easier maintenance and flexibility.
- Implemented user-requested web-based ad hoc SQL query and reporting functionality in ASP/VBScript and VB.
- Designed, implemented and tested Inventory Management and Reporting feature of Minnesota Commercial Vehicle System in ASP/VBScript and SQL 2000.

**IBM / Rational Software**, Boulder, CO

Requirements Management Group / Requisite Pro

*Staff Software Engineer / Sr. Software Quality Engineer*

**01/2001-06/2003**

- Increased white box test coverage by developing unit test code against product API utilizing JUnit and NUnit in Visual Basic, C#.NET and Java.
- Improved developer test awareness and unit test coverage by leading unit test talk for engineer-driven unit testing in JUnit.
- Expanded developer-to-tester team communication as testing liaison from Quality Engineering department to development group.
- Decreased test case development time by designing and implementing Java-based test framework and supporting test adapters to accommodate needs of API testing directives.
- Reduced development delivery-to-test time by leading technical direction of test framework and managing implementation schedule in sync with development.



- Mentored junior engineers implementing Java test code, improving test engineer efficiency.

**Hewlett-Packard/Agilent Technologies, Santa Clara, CA**

Worldwide Strategic Solutions Division R&D

*Software Engineer*

**03/1998-01/2001**

- Designed, implemented and tested Java-based diagnostic models for Agilent 3070 Board Tester achieving the product strategy of reduced mean time of repair through remote diagnosis.
- Eliminated communication bottlenecks through liaison role to Colorado division's marketing, support and R&D organizations.
- Increased technical product visibility through meetings and both strategic and technical presentations to division's marketing and management teams.
- Improved product usability with design and implementation of object-oriented, web-based diagnostic Graphical User Interface in Java/JFC-Swing.
- Reduced time to market by rapid development of requirements, prototypes and GUI object model design using Rational Rose Visual Modeler, Symantec Visual Café v3.0, and Rational Rose Requisite Pro toolsets.
- Achieved on-time prototype delivery schedule through coordinating technical decisions for GUI development and deployment.

**Hewlett-Packard/Agilent Technologies, Loveland, CO**

Manufacturing Test Division R&D

*Software Engineer*

**06/1995-03/1998**

- Planned, designed, implemented, tested and supported C/C++ code for HP3070 Board Test Software.
- Enhanced satisfaction of high-visibility customer by coordinating customer beta site evaluation of developed software modules.
- Advanced future product direction during investigation of third-party graphics library software for future product evaluation.
- Guided division-wide engineer education by planning, organizing and executing division-wide bi-monthly technical talk seminars ranging in topics from Embedded Java to Cross-platform GUI design tools.