

# Dr. Diane Christie

**Lead Game Software Engineer, Money Mavericks, Big John Games**  
**Professor, University of Wisconsin-Stout**  
**Program Director, University of Wisconsin-Stout**  
**Mathematics, Statistics & Computer Science Department**  
**College of Science, Technology, Engineering, Mathematics and Management**

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## Brief Biography

Diane was the founder of the Game Design and Development program at UW-Stout. Through her innovation and leadership the program became nationally recognized within the four years of its launch and the computer science branch was accredited by the Computing Accreditation Commission of ABET. She is also a professional game software engineer, currently working with Big John Games.

**Research Interests:** Interactive Software Development, Game Engines, Game Design and Development, Serious Game Development, Mobile Devices, Computer Science Education and Signature Pedagogy, The Scholarship of Teaching and Learning, Active Learning

**Professional Interests:** Diane is currently working on a video game, titled Money Mavericks, to teach young adults money management.

## Education

- **Ph D Materials Science**  
University of Minnesota  
Minneapolis, MN, 1999
- **M Mat SE Materials Science Engineering**  
University of Minnesota  
Minneapolis, MN, 1992
- **BS Chemistry and Mathematics**  
University of Wisconsin-Eau Claire  
Eau Claire, WI, 1984

## Work Experience

### Industry

- **Big John Games**  
Lead Game Software Engineer, Money Mavericks  
May 2016 -
- **Cray Research, Inc.**  
Senior Interconnect Engineer, C90 Supercomputer Development Project  
1987 - 1992
- **Cray Research, Inc.**  
Interconnect Engineer, MP Supercomputer Development Project  
1986 - 1987
- **Cray Research, Inc.**  
Research Chemist, Advanced Research Project  
1984 - 1986

## Academic - Post-Secondary

- **University of Wisconsin-Stout**, College of Science, Technology, Engineering, and Mathematics  
Professor  
2009 -
- **University of Wisconsin-Stout**, B.S. Game Design and Development  
Program Director  
2008 -
- **University of Wisconsin-Stout**, College of Science, Technology, Engineering, and Mathematics  
Interim Associate Dean  
2008 - 2009
- **University of Wisconsin-Stout**, College of Arts and Sciences  
Associate Professor  
2003 - 2009
- **University of Wisconsin-Stout**, B.S. Applied Mathematics and Computer Science  
Program Director  
2002 - 2008
- **University of Wisconsin-Stout**, College of Arts and Sciences  
Assistant Professor  
1999 - 2003
- **University of Wisconsin-Stout**, College of Arts and Sciences  
Senior Lecturer  
1993 - 1999
- **University of Minnesota**, Chemical Engineering and materials Science Department  
Summer Research Assistant  
1994 - 1998

## Intellectual Contributions

### Software

- Christie, D., & Schmidt, C. (2012). UW-Stout On-Campus Tour . , Google Play Store.

### Manual

- Christie, D. (2012). Lab Manual to Accompany Starting Out with Java Control Structure Through Objects. (5), Pearson Publishing.
- Christie, D. (2012). Student Solutions Manual to Accompany Starting Out with Java from Controls Through Objects. (5), Pearson Publishing.
- Christie, D. (2008). C++ Lab Manual to Accompany Computer Science: An Overview. IN Brookshear, J. G. (Eds),(10), Addison-Wesley Publishing.
- Christie, D., & Brookshear, J. G. (2007). Java Lab Manual to Accompany Computer Science: An Overview. (10), Addison-Wesley Publishing.
- Christie, D. (2006). Lab manual to accompany Starting out with Java 5: Early objects. , Addison-Wesley Publishing.
- Christie, D. (2005). Student solutions manual to accompany Starting out with Java 5: Early objects. , Scott Jones Publishing.

### Creative Production

- Christie, D. (2008). Discovering Inheritance through a Popular Video Game in CS1 (Creative Production). .

### Book, Chapter

- Christie, D. (2008). Signature pedagogies and SoTL practices in computer science. IN Haynie, A. (Eds), Exploring signature pedagogies: Approaches to teaching disciplinary habits of mind , Staffordshire: Stylus Publishing.

### Journal Article

- Christie, D., & Chelikowsky, J. (2000). Electronic and structural properties of germania polymorphs. *Physical Review B*, 62, 14703-14711.
- Christie, D., & Chelikowsky, J. (1998). Electronic and structural properties of GaAsO<sub>4</sub>. *Journal of physics and chemistry of solids*, 59, 617-624.
- Christie, D., & Chelikowsky, J. (1998). Structural properties of α-berlinite (AlPO<sub>4</sub>). *Physics and chemistry of minerals*, 25, 222-226.
- Christie, D., Chelikowsky, J., & Troullier, N. (1996). Electronic and structural properties of α-berlinite (AlPO<sub>4</sub>). *Solid state communications*, 98, 923-926.
- Christie, D., & Chenier, P. (1985). Long-range corner participation by cyclopropane. 3. Synthesis and study of 1-substituted tetracyclononanes and tetracyclodecanes. *Journal of organic chemistry*, 50, 3213-3216.

### Ph.D. thesis

- Christie, D. (1999). Electronic and structural properties of complex oxides (Ph.D. thesis). .

### Conference Proceeding

- Christie, D., & Steitz, R. (1992). High performance, high density packaging. *IEPS proceedings*, 1185, 788-794.

### Master's Thesis

- Christie, D. (1992). High performance, high density single chip carriers (Master's Thesis). .

## Presentations

### Oral Presentation

- Christie, D. (September 28, 2016). Virtual Training Systems. Manufacturing Advantage Conference, Menomonie, WI, United States.
- Christie, D. (February 22, 2013). Using a Wiki in Team Projects. The 2nd Annual Northwest Regional Instructional Technology Showcase E3 with Learning Technology: Efficiency, Effectiveness, and Engagement, Menomonie, WI, United States.
- Christie, D., Herbert, J., Potter, J., Truttman, T., Davis, L., Heiman, D., & Beachkofski, L. (March 9, 2011). Feeding Freddie. IGDA Twin Cities Chapter Meeting, Bloomington, MN, United States.
- Christie, D. (June 3, 2010). Engaging Students with Games in Computer Science. Games in Engineering and Computer Science 2010, Arlington, VA, United States.
- Christie, D. (October 23, 2009). The New GDD Program at Stout. UW Game Development and Distance Learning Community Workshop, Whitewater, WI, United States.
- Christie, D. (April 23, 2009). GDD at UW-Stout: Where we are and where we are going. UW-Stout MSCS Colloquium, Menomonie, WI, United States.
- Christie, D. (October 18, 2007). Games, Learning, & Society 2007 Conference. UW-Stout MSCS Colloquium,
- Christie, D., Bendel, C., Ghenciu, P. I., Schmidt, L. J., & Becker, J. (January 17, 2006). Lesson study. UW-Stout professional development day, Menomonie, WI, United States.
- Christie, D., Becker, J., & Thielman, L. J. (November 23, 2004). Teaching Online MSCS Courses. UW-Stout MSCS Colloquium, Menomonie, WI, United States.
- Christie, D. (November 20, 2001). Java at UW-Stout: Where we are and where are we going?. UW-Stout MSCS Colloquium, Menomonie, WI, United States.

- Christie, D., & Mandell, N. (July 25, 2000). Working with a Variety of Student Knowledge and Skills. Wisconsin teaching fellows summer institute, Madison, WI, United States.
- Christie, D. (May 19, 2000). Improving computer science 1 closed labs. Women in science spring retreat, Wisconsin Dells, WI, United States.
- Christie, D., Hansen, S., & Wagner, P. (March 31, 2000). The design and implementation of closed labs in computer science 1 and 2. Midwest Computing Conference, Whitewater, WI, United States.
- Christie, D. (March 21, 2000). Electronic and structural properties of three polymorphs of germania. UW-Stout MSCS Colloquium, Menomonie, WI, United States.
- Christie, D. (November, 1993). Innovative Semiconductor Processing. UW-Stout MSCS Colloquium, Menomonie, WI, United States.

### Panelist

- Christie, D., Haefner, J., Beck, D., Schmidt, D. A., & Williams, A. (April 30, 2013). Game Design in Education: An Interdisciplinary Approach. Wisconsin Game Developer's Summit, Milwaukee, WI, United States.

### Workshop

- Christie, D. (April 20, 2013). Introduction to Game Maker. Wisconsin Game Developer's Summit, Milwaukee, WI, United States.
- Christie, D., & Connell, E. (July 16, 2010). Digital Interactive Creation Workshop. Polytechnic Summit, Menomonie, WI, United States.

### Poster

- Christie, D. (June 13, 2012). The UW-Stout Physics Game: An Exciting Way to Learn. Games, Learning & Society Conference, Madison, WI.
- Christie, D., Mason, T. R., & Johnston, B. (July 11, 2008). Adding excitement to computer science education. Games, Learning & Society Conference, Madison, WI, United States.
- Christie, D., Mason, T. R., Johnston, B., & Teleb, R. (March 14, 2008). Discovering Inheritance through a Popular Video Game in CS1. SIGCSE 2008: The 39th ACM Technical Symposium on Computer Science Education, Portland, OR, United States.
- Christie, D. (March 28, 2001). Active student learning in mathematics and computer science. UW-Stout teaching day, Menomonie, WI, United States.
- Christie, D. (November 15, 2000). Wisconsin teaching fellows. UW-Stout research day, Menomonie, WI, United States.

### Paper

- Christie, D. (May 23, 2007). Student Interaction and Learning using Pair Programming. 2007 Teaching, Learning and Technology: What Does SOTL Reveal,

### Uncategorized

- Christie, D., Schultz, F. S., Fox, J., Springer, S. L., Asthana, R., Nold, S. C., Olson, D., & Amoapim, J. (January 19, 2005). (Discussant) How Will Nanotechnology Affect Me and My Course?. UW-Stout Professional Development Events, Menomonie, WI, United States.

## Applied Research

### Uncategorized

- **Senior Capstone Project**  
Koala Karts (September 2014 - May 2015)
- **Senior Capstone Project**  
Clash! Tusks vs. Stingers (September 2014 - May 2015)

- **UW-Stout Admissions--Mobile App**  
Happy Blaze (September 2014 - January 2015)
- **Senior Capstone Project**  
Dream Quarantine (September 2013 - May 2014)
- **Senior Capstone Project**  
Spirit Chaser (September 2013 - May 2014)
- **Senior Capstone Project--E3 Winner**  
Flash Frozen (September 2012 - June 2013)
- **Senior Capstone Project**  
Toy Cars (September 2011 - May 2012)
- **Big John Games**  
Feeding Freddie (January 2011 - May 2011)
- **UW-Stout Chemistry Department**  
Nanofever (January 2011 - May 2011)

## Grants, Contracts, and Sponsored Research

### Grant

- Christie, D., & Beck, D. Professional Development: Game Developer Conference. Sponsored by UW-Stout Professional Development Grant, \$4277.
- Christie, D., Hong, Y., & Mccullough, L. E. Interactive Physics Game to Enhance Students' Problem Solving Skills. Sponsored by UW System Curricular Redesign Grant Program: Leveraging Technology to Meet Classroom Challenges, \$7187.
- Christie, D., Bae, W. D., Karmaker, A., & Mason, T. R. Professional Development in Computer Science Education. Sponsored by UW-Stout Professional Development Grant, \$3300.
- Christie, D. Implementing Game Design and Development at UW-Stout. Sponsored by UW-Stout Professional Development Grant, \$1531.
- Christie, D., Mason, T. R., Johnston, B., & Teleb, R. CS1 Lesson Study on Object Inheritance in Java. Sponsored by UW-Stout Nakatani Teaching and Learning Center, \$1500.
- Christie, D., & Motley, P. Development of the First Capstone Course for the Game Design and Development Concentrations in the Applied Mathematics & Computer Science and the Proposed Game Design and Development Program. Sponsored by UW-Stout Curriculum Incubation Grant, \$3000.
- Christie, D., & Johnston, B. Increasing Enrollment in University Computer Science Programs: Promoting the Multidisciplinary Use of the Alice Programming System in the Middle School Curriculum. Sponsored by UW-Stout Faculty Research Initiative Grant, \$15217.
- Christie, D., Schmidt, L. J., Antonippillai, A. K., & Tian, H. Lesson Study Training Grant in Intermediate Algebra. Sponsored by UW-Stout Nakatani Teaching and Learning Center, \$1500.
- Christie, D., & Motley, P. Development of Overview of Interactive Media Course for the Game Design and Development Concentrations in the Applied Mathematics & Computer Science and Art Programs. Sponsored by UW-Stout Curricular Incubation Grant, \$9000.
- Christie, D., & Johnston, B. Games in Education. Sponsored by UW-Stout Just-in-Time Professional Development Grant, \$624.
- Christie, D., & Johnston, B. Professional Development in Computer Science Education. Sponsored by UW-Stout Professional Development Grant, \$2238.
- Christie, D., Zito, E., Kruschwitz-List, D., & Foley, J. Professional Development in Beginning Mathematics: Development of a New Pedagogy Incorporating Web-Based Instruction into the Introductory and Intermediate Algebra Curriculum. Sponsored by UW-Stout Professional Development Grant, \$3200.
- Christie, D., & Wagner, P. Attendance at the 33rd ACM Technical Symposium on Computer Science Education (SIGCSE). Sponsored by UW-Stout Professional Development Grant, \$3099.
- Christie, D., Johnston, B., Mikkelsen, D., Nord, J., Teleb, R., & Wagner, P. Professional Development in Java Programming Language: Development of a New Pedagogy Incorporating Event Driven

Programming with Graphical User Interface Techniques into a Java Based Computer Science Curriculum. Sponsored by UW-Stout Professional Development Grant.

- Christie, D., Zito, E., Hansen, S., Ellison, M., & Mikkelson, R. UW-Stout Computer Science Course Initiative. Sponsored by Science, Gender and Community Curriculum Reform Institute.
- Christie, D., Hansen, S., Wagner, P., & Mikkelson, R. Microsoft Instructional Lab Grant for Software Licenses. Sponsored by Microsoft.

## Intellectual Property

### Patent

- Christie, D., (October 25, 1994). Method of Fabricating Metallized Chip Carriers from Wafer-Shaped Substrates.
- Christie, D., (March 2, 1993). Non-Metallized Chip Carrier.
- Christie, D., (January 26, 1993). Method of Fabricating Metallized Chip Carriers from Wafer-Shaped Substrates.
- Christie, D., (July 7, 1992). Flexible Automated Bonding Method and Apparatus.

## Media Contributions

### Radio

- **Wisconsin Public Radio** (June 2013)  
Spectrum West Interview. Flash Frozen E3 College Game Competition Award Interview by Al Ross

## Reviewer / Editor

### Reviewer, Book

- **Unity3D and Playmaker Essentials: Game Development from Concept to Publishing**  
by Jere Miles from Focal Press (2015)
- **Holistic Game Development with Unity**  
by Penny de Byl from Focal Press (2011)
- **A Comprehensive Introduction to Programming with Java**  
by C. Thomas Wu from Focal Press (2007)
- **A Comprehensive Introduction to Programming with Java**  
by C. Thomas Wu from McGraw-Hill (2007)
- **Alice in Action with Java**  
by John Bosco from Prentice Hall (2006)
- **Foundations of Mathematics**  
by Bittinger and Penna from Addison Wesley (2004)
- **Starting Out with Java**  
by Tony Gaddis by Scott/Jones Publishing (2004)
- **Computing with Java: Programs, Objects, Graphics**  
by Art Gittleman from Scott/Jones Publishing (2003)
- **Introductory Algebra**

by Bittinger from Addison Wesley (2003)

- **Introductory and Intermediate Algebra**  
by Bittinger and Beecher from Addison Wesley (2003)
- **Computing Concepts with C++ Essentials**  
by Cay Hortsmann from John Wiley (1999)

## Awards, Fellowships, Honors, and Scholarships

### Award

- Dahlgren Professorship, UW-Stout (2014)
- Chancellor's Leadership Development Award for Women, UW-Stout (2009)
- 16th Annual Regents Award for Teaching Excellence for an Academic Department, UW-System (2008)
- Who's Who Among American Teachers Award, (1996)
- 1st Annual Cray Research Leadership and Innovation Award, Cray Research (1989)

### Fellowship

- University of Wisconsin Teaching Fellow, UW-System (2000)

## Professional Memberships

- Association for Computing Machinery (ACM)
- Special Interest Group in Computer Science Education (SIGCSE)

## Service

### Professional

- **Contest Judge**, ACM Regional Collegiate Programming (September 2011 - December 2011)
- **Conference Session Chair**, Midwest Instruction and Computing Symposium, UW-Eau Claire (September 2010 - December 2010)
- **Operations Director**, Regional ACM Collegiate Programming Contest (September 2003 - December 2003)

### Community

**Math Bowl Judge**, St. Mark Lutheran Elementary School (January 2008 - May 2011)