# Eben Howard

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**game designer • programmer • researcher • manager**

## Education

**Master of Science in Computer Science**
*Outstanding M.S. Researcher Award*
Montana State University
Graduation May 2013

**Bachelor of Arts in Philosophy**
*Focus on Advanced Logic*
Montana State University
Graduation May 2007

## Research Publications

**Cascading Impact of Lag on User Experience in Multiplayer Games** • NSDI 2013
Presented novel research showing that people with no lag to a game server were impacted objectively, subjectively, and physiologically by being in a cooperative game with another individual who had lag. This research used a combination of input logging, surveys, and brain-wave scanning devices.

**An Integrated Toolset for Ontology-Guided Diagnostic Knowledge Discovery** • AUTOTESTCON 2012
*Outstanding Student Paper award*
Developed and released a data visualization tool for tracking maintenance records of military aircraft. Tool featured multi-threaded design in Java with a MySQL database backend.

**Effects of the Number of Developers on Code Quality in Open Source Software: A Case Study** • ESEM 2010
*First undergraduate paper accepted by ESEM*
Presented research showing that in the popular open source projects studied the number of developers did not affect code quality, contrary to the expectations of previous works.

## Projects

**SquidLib** • https://github.com/squidpony
Designed and created a Java library to assist in the rapid development of grid based games. Includes Swing and libGDX interfaces, robust Color support and tools, Field of View and Line of Sight algorithms, and utility math classes specialized for grid world games.

**Computer Games** • http://squidpony.com
Designed and programmed multiple games in Java and Inform 7. Specialized in grid based roguelike coffee-break games. Participated in the 7 Day Roguelike Challenge for the last five years.

**Bob 40-1889**
Implemented algorithms for autonomous operation as the Software Engineer and Lead Programmer for a robotic submarine. Was founder and president of the student support club for the project.

**RoboMagellan Autonomous RC Car**
Designed and programmed an autonomous car based on a remote control rock crawler chassis. Body of vehicle was constructed from Legos to allow rapid prototyping of sensor positions and weight distribution.

## Work Experience

**Game Design Pundit** • Roguelike Radio • Mar 2013 – Present
Review, critique, and discuss various aspects of game design. Topics range from specific game reviews to aesthetic design choices. Participating as both a pundit and developer.

**Graduate Research Assistant** • Montana State University, Bozeman MT • Apr 2012 – Present
Performed research in Networking on the cascading impact of lag in a cooperative multiplayer game. Research presented at NSDI as a poster and under submission for publication.

**Chief Announcer** • KGLT Radio, Bozeman MT • May 2011 – May 2013
Responsible for performance and standards compliance of over 90 DJs. Instituted new personnel management standards and policies. Modernized employee tracking system.

**Graduate Teaching Assistant** • Montana State University, Bozeman MT • Apr 2011 – Apr 2012
Responsible for assisting Web Design and Programming with Java courses. Duties included presenting in-lab work, grading, and substitute lecturing.

**IT Manager** • Confluence Consulting Inc., Bozeman MT • Mar 2008 – Aug 2009
Responsible for maintenance and upgrade installation of all IT components, both hardware and software. Created and maintained web site.

**Sales Manager** • Staples, Olympia WA • May 2007 – Feb 2008
Responsible for all sales activity, metrics tracking, and personnel training. Highlights include increasing store position in both sales and customer satisfaction metrics from bottom of district to top of district. Increased employee retention and ensured company training goals were met in an expedient manner.

**Store Manager** • GameStop, Bozeman MT • Aug 2005 – May 2007
Responsible for all aspects of store operations, including employee hiring, scheduling, training, and inventory management. Brought store from bottom to top of regional rankings through meticulous attention to detail and team building. Excelled in fast paced, high stress environment.

**Mobile Subscriber Equipment Team Leader** • US Army, Uijeongbu South Korea • Sep 2001 – Jun 2005
Responsible for all logistical elements necessary for mission success. Skill at planning allowed team to ensure zero drop-outs in communication. Responsible for Battalion's Good Neighbors program to teach English to Korean school children.

## Technical Skills

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| Java | C# | SVN | Git |
| NetBeans | Visual Studio | Eclipse | Visio |
| Word | Excel | PowerPoint | R |
| LaTeX | PaintShop Pro | Corel Draw | Audacity |