

CALLEN SHAW

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EDUCATION

Bachelor of Science, Computer Science, received April 26, 2009
University of Pittsburgh, Pittsburgh, PA

INTERESTS

- Algorithms
- Artificial Intelligence
- Game Development
- Systems Software
- Web Technology

SKILLS

Algorithm Design

- Competed in the ACM International Collegiate Programming Contest in 2007 and 2008
- Competed in the Carnegie Mellon Spring Programming Contest in 2008
- Courses:
 - Algorithm Implementation CS1501 (*University of Pittsburgh*)
 - Intro to Simulations CS1538 (*University of Pittsburgh*)

Artificial Intelligence

- Interest in AI from hobby video game development
- Development of Space Attack (<http://www.omegagames.net/games/spaceattack.php>)
- Developed Bumper Car AI with Neural Networks (http://www.omegagames.net/cts8_bumper.pptx)
- Courses:
 - Intro to Artificial Intelligence CS1571 (*University of Pittsburgh*)
 - Artificial Intelligence Application Development CS1573 (*in progress, University of Pittsburgh*)

Game Development

- Developed games as a hobby for omegagames website, in class, and for Xbox 360 (<http://www.omegagames.net/games.php>)

Application Development

- Internship with Applied Systems Associates 2007-2008, independently developed an internal company tool for tracking code changes. I learned many important skills doing this project:
 - Database technology
 - User Interface design
 - Software design methodologies
 - Project management
- Courses:
 - Software Engineering CS1530 (*University of Pittsburgh*)

Systems

- Work experience with the University of Pittsburgh Residential Networking gave exposure to many real-world systems.
- Programmed an action game called Break-In for the PSP handheld (<http://pspupdates.qj.net/Fourth-Creation-Entry-Break-In-From-OmegaGames/pg/49/aid/56535>)
- Developed a Tetris clone for the Microsoft Zune Media Player (<http://code.google.com/p/tetrazune/>)
- Courses:
 - Advanced Systems Software CS1651 (*University of Pittsburgh*)
 - Programming System Design on a Mobile Robot Platform CS1567 (*University of Pittsburgh*)

Web Technology

- Maintain a personal website at <http://www.omegagames.net> with functioning message board system and browser-based games.
- Developed a puzzle game called Mineswiper (<http://www.omegagames.net/games/mineswiper.php>) which connects to a remote database for high-score storage.
- Developed a QR Code web application for mobile phones as a directed study at University of Pittsburgh
 - System was deployed during departmental event as cyber-physical Scavenger Hunt game
 - Used MySQL, PHP, Javascript, and Google Charts API for QR Code generation
 - Submitted in paper to MobiDE 2009 (<http://www.omegagames.net/rfid.pdf>)
- Courses:
 - Programming Languages for Web Applications CS1520 (*University of Pittsburgh*)
 - Special Topics in Computer Science: Web 2.0 Principles and Technologies CS1699 (*University of Pittsburgh*)

PERSONAL STATEMENT

Though I was exposed to computers at a fairly later age than many, I quickly became absorbed in them. I have spent much of my spare time developing computer games and enjoy the challenge of using many disparate aspects of computer science to create a simulated world for the user. I find that these self-directed projects have provided some of my greatest learning experiences.

I personally believe that computers can be applied beneficially to almost any field imaginable. I strive to learn anything I can about them, and seek constantly to improve the human-computer experience. I feel there is no limit to the breadth of information I would enjoy learning, but I hope to be able to apply myself to a specific focus and do meaningful research in the field. I have no doubt that I would enjoy studying a wide variety of topics, and I am excited to see what opportunities arise.