

Joshua Gilpatrick

Professional Qualifications:

- Motivated Self Starter, strong work ethic
- Adaptive to any working environment
- “Out of the box” creative thinker
- Works well in Groups or Independently

Technical Skills:

Software Knowledge: Visual Studio, Flash, MS SQL Server, PIX, Photoshop
Graphics Libraries: DirectX 10, DirectX 9.0c, XNA, OpenGL
Programming: C++, C#, ASP.NET, Java, PHP, HTML, CSS, JavaScript.
Expertise: Artificial Intelligence, Networking

Education: Rochester Institute of Technology, Rochester, New York

- *Masters in Game Design and Development*
Concentration in Artificial Intelligence
Minor in Networking - expected May 2009
- *Bachelor of Science in Information Technology,*
Minor in Communication and Marketing - May 2007

Related Projects:

- **Time Slip** – This is a game that I developed professionally for Ratatoskr. The player is a racer in space who can use gravity to help get an edge over the opponent. I developed a threaded game engine in XNA, with hardware instancing to enable the rendering of over fifty objects in one draw call. The game was developed on the XBOX 360 and is in the last stages of being prepared and sent off for approval to be sold on XBOX Live Arcade.
<http://www.ratatoskr.com/TimeSlip.html>
- **Bayesian Belief Network to Model Emotion** – This project was developed to form complex emotions from six base emotions. An example may be a mix of happy and sad to make contempt. I use a series of parallel Bayesian Belief Networks to arrive at a complex emotion to be presented to the user.
- **Sensing AI** – This project enables the user to fight against an artificial intelligence team that learns its environment by seeing it, much the same way a player does. The AI also listens for gun fire or foot steps to know where another player may be hiding.
- **Bloxen** – This is one of the first 3D games I developed. Bloxen is a networked third person shooter game where the player runs around as Lego character and drops blocks to hinder the opponent’s advancement to capture their flag. This game is popular with many incoming freshmen at the Rochester Institute of Technology.

Employment Experience:

- **Technical Director at Ratatoskr Entertainment, Rochester, New York** **2008 – Present**
Responsibilities include managing a team of nine people, developing a schedule around assigned milestones, developing specific parts of a game, design and developing an engine for the game, and building a design and technical document.
- **Game Development Tutor at Rochester Institute of Technology, Rochester, New York** **2007 – 2008**
I assisted the professors by working directly with students and teaching them how to optimize code for games and solve technical issues for developing 2D and 3D games.
- **Web Developer at VanDamme Associates, Victor, New York** **2005 – 2007**

Activities/Interests:

- Future Play - <http://www.futureplay.org>
- Ski Club, Rock Climbing, Juggling, Programming, Piloting