

Aditya Vijayakumar

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OBJECTIVE

A Software Engineer seeking a gameplay programming role in the Entertainment Industry

EDUCATION

Carnegie Mellon University, Entertainment Technology Center *Aug 2012 – May 2014*
Master of Entertainment Technology
Courses: Computer Graphics, Game Design

PSG College of Technology, India *Aug 2007 – Jul 2012*
Master of Science in Software Engineering
Courses: Design Patterns, Object Oriented programming

EXPERIENCE

Game Engineering Intern at Schell Games *Jun 2013 – Aug 2013*

- Programmed Enemy AI and Combat in "Lexica", a 3D tablet based Educational RPG

Analyst Developer Intern at Goldman Sachs *May 2010 – Nov 2010*

- Developed a transaction server that processed securities within the **Private Wealth Management** division using Java and Sybase

GAME DEVELOPMENT PROJECTS

Computer Graphics programming, CMU *Sept 2013 - Current*

- GLSL - **Dynamic displacement & Phong Bump mapping** using **tessellation & geometry** shader
- Ray tracer with Photon mapped KD trees – using **Voxel grids**, light volumes & super sampling
- XNA – Simple shadow mapping, skeleton animation, image postprocessor
- Work can be seen at <http://projectscrash.webs.com/computergraphics.htm>

Lead Programmer & Game Designer at GASx3, ETC *Jan 2013 - May 2013*

- A simulation RTS game that educates Medics about Chemical decontamination and Triage
- Worked with the **US Army's Chemical Casualty Care division** which is part of TATRC

Programmer at BVW (Building Virtual Worlds), ETC *Aug 2012 – Dec 2012*

- Worked with interdisciplinary teams to rapidly prototype games in weekly iterations
- Programmed various input devices such as **Eye Tracker, PS Move, Kinect, HMD**
- BVW worlds can be viewed at <http://projectscrash.webs.com/apps/blog>

Programmed and Sold Xbox360 Indie game Beach Paddle *Jan 2011 – Jun 2011*

- Programmed and successfully published a game on XBLIG (Xbox Live Indie Game)

SKILLS

Programming : C, C++, Objective-C, C#, Java, GLSL, Shell
APIs : OpenGL, XNA, openCL, openCV, openframeworks, cocos2D, AVFoundation
Tools : Unity, git, svn, JIRA, Hansoft, Visual studio, Xcode, Testflight, perforce

RESEARCH POSTER

A GPGPU based implementation of Hybrid Genetic Algorithm and Particle Swarm Optimization for Function Optimization, Aditya Vijayakumar, Biravamurthy SK, Suresh Balusamy, 18th Annual IEEE International Conference on High Performance Computing(HiPC), Bangalore, India, 2011

ACHIEVEMENTS

- Programming **Teaching Assistant - Building Virtual Worlds** Fall 2013 at Carnegie Mellon
- Developed "**Aquario**" an eyetracking game featured in **GameDeveloper Magazine March 2013**
- Developed and published** Step-By-Story on App store and Beach Paddle on XBLIG
- Selected as one of the **Top 11** teams in India for **Microsoft's Student2Business** program in 2009