

Matthieu St-Pierre

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PROGRAMMING SKILLS

- C++, Matlab, DirectX, HLSL, C#, Java, Win32, MFC
- Platforms: Xbox360, Playstation3, PC
- 9 years of game development, mostly in graphics

WORK EXPERIENCE

Ubisoft

Montreal & Toronto, Canada | August 2009 – now
Graphics Programmer
Game titles: Splinter Cell, Your Shape 360 (Xbox360)

I am currently working on Splinter Cell at the Toronto office. I develop visual effects based on papers, and optimize algorithms for game consoles. Prior to this I worked on a Microsoft Kinect launch title. There I spent my time on various areas including the pipeline, porting graphics to the Xbox360 and improving quality and speed of techniques. I took on the role of lead graphics programmer towards the end of the project.

Electronic Arts

Playa Vista, California | June 2008 – August 2009
Graphics Programmer
Game titles: Medal of Honor (Xbox360, Ps3)

My role was to work on graphics within the systems team. My role involved writing technical documents and working on character lighting, graphic optimizations, and on reducing fragmentation on the Ps3. A big responsibility was to integrate a global Illumination middleware and distribute the light bakes.

Digital Extremes

Ontario April 2003 – January 2008
Programmer
Game titles: Dark Sector (Xbox360, Ps3), Pariah (Xbox, PC)

At this studio I worked on various aspects of engine development, such as user interface tools, animation, graphics and gameplay.

ACCOMPLISHMENTS

- Implemented alone an engine, editor and game for a startup (150k lines of code)
- Wrote game editor both in c# and MFC with perforce integration
- Designed and implemented engine asset architecture and import pipeline
- Porting and optimization of rendering code for consoles
- Implemented game foundations using aggregation
- Integration of global Illumination, physics and UI middleware
- Wrote an indirect lighting system for dynamic entities
- Worked on forward, pre-lit and deferred renderers
- Implemented various antialiasing techniques
- Implemented atmospheric special effects and camera imperfection effects
- Wrote importers for various mesh file formats
- Basic animation blend tree system, animation mirror tool and simple foot IK
- Skeletal mesh and soft-body rendering
- Playstation3 memory optimization
- Implemented numerous material shaders
- Worked on the multiple platform EVO game engine (currently licensed)
- Wrote data-driven UI system that separates the art aspect from the code
- Wrote in-game map editor on Xbox
- Worked on 5 titles based on Epic's technology
- Demoed game in Monaco to vendors

EDUCATION

Electrical Engineering Honors COOP

University of Waterloo | 1996 - 2001

Undergraduate level

Dean's Honors list, First-class honors, last year GPA: 89.5, Nortel Scholarship. As a final engineering project, I built a child-size hand prosthetic controller that uses myoelectric sensors.

Mathematics and Computer Science

University of Waterloo | 2001-2002

Undergraduate level

After engineering, I extended my studies by pure interest. I did courses in computer science and mathematics.

Applied Mathematics

University of Waterloo | 2002-2003

Graduate level

During my studies in applied mathematics, I further extended my knowledge taking courses in artificial intelligence and asymptotic analysis.

INTERNSHIPS

Engineer Intern - Microsoft Corporation

Redmond, Washington, USA | Fall 2000

Engineer Intern - Cypress Semiconductor

San Jose, California, USA | Winter 1999

Engineer Intern - General Motors, Electronic Monitoring Unit

Oshawa, Ontario, Canada | Summer 1998

Engineer Intern - Nortel Networks, Advanced Opto-Electronics

Ottawa, Canada | Winter 1997

Engineer Intern - Nortel Networks, Speech Recognition Unit

Montreal, Canada | Fall 1997