Manolya (Eyiyurekli) McCormick, Ph.D.

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Professional Summary

Analytical software development professional possesses strong knowledge of graphics programming. Quickly masters new software packages and hardware technologies. Well versed in C++ and OpenGL. Works well under pressure and meets deadlines and targets while delivering high quality work.

Skills

- C/C++
- OpenGL and GLSL
- QT
- Python
- SQL
- HTML and CSS
- JavaScript
- Shell scripting
- Experience working on Mac OS X, Windows and Linux platforms.
- In depth knowledge of graphics algorithms, linear algebra and trigonometry.
- Experience with multi-threaded programming and shader development.

Work History

Software Engineer, 09/2013 to 02/2015
dRaster, Inc – Irvine, CA

- Contributed to development and improvement of Autodesk MAYA; added new features, improved existing functionality, and resolved bugs and software issues.
- Worked in a team to develop an asset management tool from the ground up.
  - Developed physically-based shaders to support complex scenes with various materials, lights and effects
  - Designed and implemented efficient algorithms, employing acceleration techniques and multi-threading for fast file I/O and string parsing
  - Integrated state-of-the-art 3D model representation libraries into a cohesive product
- Researched and implemented innovative algorithms for improved user interaction.

Research & Development Intern, 06/2009 to 09/2009
DreamWorks Animation SKG – Glendale, CA

- Worked with the R&D team to build tools for the 3D production pipeline.
- Implemented advanced techniques for surface extraction from volumetric implicit data.
- Worked in extreme programming pairs to develop a fluid solver for particle systems.
- Participated in ongoing research and development of a novel level-set library.

Research Assistant, 09/2004 to 09/2011
Drexel University – Philadelphia, PA

- Performed research, developed software to test theories and demonstrate outcomes, and published results.
- Designed and implemented a C++/OpenGL application to interactively deform 3D objects.
- Designed and implemented a C++/OpenGL simulation to demonstrate virtual tissue development.

Software Engineer, 07/2003 to 08/2004
SIEMENS – Istanbul, Turkey

- Worked on developing a forecast reporting tool.
- Designed and administered an MS SQL database.
- Implemented an intranet application that helps user to enter his sales forecast and create and evaluate reports, using ASP.NET, HTML and CSS.

Education

Ph.D.: Computer Science, December 2012
Drexel University - Philadelphia, PA

- 3.88 GPA
- Recipient of George Hill Jr. Endowed Fellowship
- Member of UPE Honor Society
- Recipient of Outstanding Graduate Student Research Award

Master of Science: Computer Science, September 2006
Drexel University - Philadelphia, PA

- 3.73 GPA

Bachelor of Science: Computer Science and Engineering, June 2004
Isik University - Istanbul, Turkey.

- 3.92 GPA
- Valedictorian

Selected Publications

- M. Eyiyurekli, D.Breen, "Detail-Preserving Level Set Surface Editing and Geometric Texture Transfer", Graphical Models, under review.
- M. Eyiyurekli, D. Breen, "Data Structures for Interactive High Resolution Level-Set Surface Editing", Proc. of Graphics Interface, May 2011, pp. 95-102.
- M. Eyiyurekli, D. Breen, "Interactive Free-Form Level-Set Surface-Editing Operators", Computers & Graphics, Vol. 34 No. 5, 2010, pp. 621-638.
- M. Eyiyurekli, C. Grimm, D. Breen, "Editing Level-Set Models with Sketched Curves", Proc. of Eurographics/ACM Symposium on Sketch-Based Interfaces and Modeling, August 2009, pp. 45-52.
- M. Eyiyurekli, D. Breen, "Localized Editing of Catmull-Rom Splines", Computer Aided Design and Applications, Vol. 6, No. 3, 2009, pp. 307-316.