

Sujeong Kim

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OBJECTIVE

Seeking a challenging position in software development

EDUCATION

Aug 2010 – May 2015 (Expected)	University Of North Carolina at Chapel Hill, U.S.A Ph.D. Candidate in Computer Science (Advisors: Prof. Ming Lin and Prof. Dinesh Manocha) Research Topic: Interactive Crowd Simulation (Animation, Human-robot Interactions, Pedestrian Tracking)
Aug 2007 Mar 2005	Ewha Womans University, KOREA M.S. in Computer Science and Engineering (Advisor: Prof. Young J. Kim) B.S. in Computer Science and Engineering (MAGNA CUM LAUDE, Rank 1 st)

WORK EXPERIENCE

Summer 2014	Disney Research Los Angeles , Lab Associate Worked on crowd simulation for immersive virtual environment (Advisor: Dr. Carol O'Sullivan)
Summer 2013	Apple , Intern Platform Architecture Graphics team. Worked on techniques for mobile graphics on iOS
Summer 2012, Summer 2011	Advanced Micro Devices (AMD) , Intern Worked on Bullet Physics and Crowd Simulation , Network-based Rendering Worked on AMD GPU demos (Leo), Per-face texture (Ptex)
Oct 2009 - Jul 2010	KIST (Korea Institute of Science and Technology) , Researcher Imaging Media Research Center, Worked on continuous collision detection
Jul 2007 - Aug 2009	SK C&C, KOREA , Software Engineer Worked on 3D maps rendering and GUI for mobile devices (Initial version of Mappy 3D) Used Microsoft Embedded Visual C++, OpenGL ES 1.0, GDebugger
Jun-Jul 2007, Jan -Aug 2006	INRIA Rhône-Alpes, FRANCE , Intern Worked on View-dependent dynamics and continuous collision detection for articulated bodies (Advisor: Dr. Stephane Redon)

TECHNICAL SKILLS

- Programming / Scripting Languages
 - Proficient with: C++, OpenGL
 - Experienced with: Matlab, Python, Java, Javascript, HTML, Lua, DirectX, HLSL, GLSL
- Developer Environments: Visual Studio, Xcode

SELECTED PUBLICATIONS

- Aniket Bera, Sujeong Kim, Dinesh Manocha, **Efficient Trajectory Extraction and Parameter Learning for Data-Driven Crowd Simulation**, Accepted to Graphics Interface, 2015.
- Sujeong Kim, Stephen J. Guy, Wenxi Liu, David Wilkie, Rynson W. H. Lau, Ming C. Lin, Dinesh Manocha, **BRVO: Predicting Pedestrian Trajectories using Velocity-Space Reasoning**, The International Journal of Robotics Research (IJRR), Feb. 2015, Vol. 34, no. 2 pp.201-217. <http://gamma.cs.unc.edu/BRVO/>

- Sujeong Kim, Stephen J. Guy, Karl Hillesland, Adnan Gutub, Basim Zafar, Ming C. Lin, Dinesh Manocha, **Velocity-based Modeling of Physical Interactions in Dense Crowds**, *The Visual Computer*, June 2014. <http://gamma.cs.unc.edu/CrowdInteractions/>
- Sujeong Kim, Stephen J. Guy and Dinesh Manocha, **Velocity-Based Modeling of Physical Interactions in Multi-Agent Simulations**, ACM SIGGRAPH / Eurographics Symposium on Computer Animation (SCA), 2013. <http://gamma.cs.unc.edu/CrowdInteractions/>
- Sujeong Kim, Stephen J. Guy, Wenxi Liu, Rynson W. H. Lau, Ming C. Lin and Dinesh Manocha, **Predicting Pedestrian Trajectories using Velocity-Space Reasoning**, Workshop on the Algorithmic Foundations of Robotics (WAFR), 2012. <http://gamma.cs.unc.edu/BRVO/>
- Sujeong Kim, Stephen J. Guy, Dinesh Manocha, Ming C. Lin, **Interactive Simulation of Dynamic Crowd Behaviors using General Adaptation Syndrome Theory**, ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games (I3D), 2012. <http://gamma.cs.unc.edu/GAScrowd/>
- Sujeong Kim, Karl Hillesland, Justin Hensley, **A Space Efficient and hardware Friendly Implementation of Ptex**, Technical Sketch, SIGGRAPH ASIA, Dec 2011 <http://www.cs.unc.edu/~sujeong/Ptex/>
- Stephen J. Guy, Sujeong Kim, Ming C. Lin, Dinesh Manocha, Simulating **Heterogeneous Crowd Behaviors Using Personality Trait Theory**, ACM SIGGRAPH/Eurographics Symposium on Computer Animation (SCA), Aug 2011. <http://gamma.cs.unc.edu/Personality/>
- Sujeong Kim, Stephane Redon, Young J. Kim, **View-dependent Dynamics of Articulated Bodies**, *Computer Animation and Virtual Worlds*, Vol.19, No.3-4, 2008 <http://graphics.ewha.ac.kr/VDD/>
- Sujeong Kim, **View-dependent Simulation of Articulated Bodies with Haptic Feedback**, *Master's Thesis*, Ewha Womans University, Aug. 2008
- Sujeong Kim, Stephane Redon, Young J. Kim, **Continuous Collision Detection for Adaptive Simulation of Articulated Bodies**, *The Visual Computer*, Vol. 24, No. 4, Apr. 2008 <http://graphics.ewha.ac.kr/CCD4AD/>
- Sujeong Kim, Xinyu Zhang, Young J. Kim, **Haptic Puppetry for Interactive Games**, *LNCS 3942: Proceedings of the 1st International Conference on E-learning and Games*, pp. 1292-1302, Hangzhou, China, 2005 <http://graphics.ewha.ac.kr/HPuppetry/>

HONORS AND AWARDS

- **International Research Collaboration Program Grant**, Korea Research Foundation
- **KBS(Korea Broadcasting System) Scholarship for Engineering Students**
- **Lee Ki-ho Scholarship**, Ewha Womans University
- **Kim Ae-da Award**, Ewha Womans University
- **Best Contents Award for undergraduate project**, Dept of CSE, Ewha Womans University
- **Dean's List 2002-2004**, Ewha Womans University

PATENT

- Sujeong Kim and Minhwan Jeon, "**Method and apparatus for displaying symbol information of car navigation**," Korean Intellectual Property Office, 1011200370000

VOLUNTEER ACTIVITIES

- English to Korean Translation for World Vision Charity, May 2009-Jun 2010
- Korea Childhood Leukemia Foundation: Jun-Aug 2004, Jul-Aug 2005
- Siloam Center for Blind People: Jun-Jul 2003

OTHER ACTIVITIES

- UNC Symphony Orchestra: Jan 2013-Dec 2013
- Webmaster of Korean Student and Scholars Association, Sep 2012-Present
- Dongcheon Choir/ Ensemble (Violin): Jan 2003-Dec 2005, Sep 2006-Dec 2008
- Eglise Grenoble Choir: Feb-Sep 2006
- Taekwondo 2nd Dan
- Felt craft qualification