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MURPHY STEIN
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ACADEMICS & RESEARCH

Courant Institute,
New York University
2006-Present

Ph.D. Computer Science Candidate (class of 2013)

Research Topics To-Date:

- Fun, empirically validated computer games for learning math and science
- Augmented Reality Presentations using Microsoft Kinect

M.S. Mathematics (completed 2008)

M.S. Computer Science (completed 2010)

Dartmouth College
1997-2001

B.A. Cognitive Science

- *Academic Honors*: GPA in top 15% of student body
- *Senior Thesis* – “A novel touch-screen system for entertainment applications”

PUBLICATIONS & INVITED TALKS

Stein, M. Xiao, X. Hendee, C. Perlin, K. *ARCADE: A system for augmenting gesture based computer graphic presentations. (Submitted to ACM/SIGGRAPH, 2012)*

Plass, J.L., Homer, B.D., Hayward, E., Stein, M. *An Experimental Investigation of Learning Mechanics in a Computer-Based Geometry Game. (in progress)*

Plass, J.L., O’Keefe, P.A., Homer, B.D., Hayward, E., Stein, M. & Perlin, K. (2011, April). *Motivational and Educational Outcomes Associated with Solo, Competitive, and Collaborative Game Play*. American Educational Research Association (AERA).

Homer, B.D., Plass, J.L., O’Keefe, P.O., Hayward, E. & Stein, M. (2011, June). *Social context, motivation and learning in an educational video game to teach middle school math*. Poster presented at the annual meeting of the Jean Piaget Society, Berkeley, CA.

INDUSTRY RESEARCH EXPERIENCE

Applied Minds
2010

- *Internship*: Developed terrain visualization system for autonomous cars
System is real-time, using CUDA and custom Cg shaders

X PRIZE
Foundation 2007

- *Fellowship*: Helped develop \$10 million X Prize targeting math literacy.
Wrote report on potential competitors and helped create prize rules

Viewpoints Research
Foundation 2006

- *Internship*: Implemented speech recognition system in *Squeak* – an open-source SmallTalk environment for kids. My advisor was Alan Kay.

CONSULTING (excerpt)

Scholastic Inc.
2004-2009

From 2004-2009 I consulted for the Education Technology Group at Scholastic

- Developed Bayesian algorithms for adaptive math system
- Directed playtesting studies of adaptive reading programs for middle school
- Authored functional specification for multi-million dollar reading program

WonderLab LLC
2001-Present

I started WonderLab in 2001 to do software consulting & programming.

- **My clients**: Barnes & Noble, McGraw-Hill, Pearson Publishing, Scholastic, Atlantic Records, American Museum of Natural History.

TEACHING & VOLUNTEER WORK (excerpt)

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| cSplash (NYU)
2007-Present | <ul style="list-style-type: none">• Co-director of math enrichment program for gifted students• Instructor for PHP programming and web-design class |
| Top Honors Inc.
2005 | <ul style="list-style-type: none">• Math tutor for 7th and 8th grade students
(TopHonors provides <i>free</i> tutoring for students in NYC Public Schools) |
| Vision Education Inc.
2003-2004 | <ul style="list-style-type: none">• After-school Mathematics & programming instructor, grades 3-9• Developed 6-8 grade math curriculum for LEGO Corp. |
| Beijing Foreign
Language Institute | <ul style="list-style-type: none">• English Language instructor in Beijing, China (2001-2002)• Taught students aged 10-35 and learned to speak Mandarin |

REFERENCES

Michael Artin	martin@book.com
Ken Perlin	ken.perlin@gmail.com