Ardavan Kanani

10156 Sycamore Hollow Lane

Germantown, MD 20876

Phone: 617-447-7996

Email:ardavan.kanani@me.com

GitHub:<https://github.com/Ardook/noor>

Education:

*University of North Carolina at Chapel Hill, Chapel Hill, NC*

M.S. in Computer Science GPA 3.8 (Withdrawn due to financial difficulties)

(Computer Graphics and Simulation)

*Courant Institute of Mathematical Sciences, New York, NY*

M.S. in Mathematics (December 2007) GPA 3.7

*Massachusetts Institute of Technology, Cambridge MA*

Advanced Study Program Fellow Mathematics

(September 2004 to January 2006)

*Polytechnic University, Brooklyn NY*

B.S. in Computer Science (December 1998)

Experience:

*(10/2015 to present) personal project*

*(*<https://github.com/Ardook/noor>)

*Noor (GPU path tracer):*

Noor is a real-time gpu path tracer.

*(01/13 to 10/2015) HeroEngine*

*Graphics Software Engineer:*

- HeroEngine camera system.

- HeroEngine asset Management with support for FBX and Granny.

- HeroEngine animation framework with support for FBX and Granny.

- HeroEngine path follower system.

- OpenGL renderer for HeroEngine.

*(05/12 to 08/12) ILM R&D Rendering*

*R&D Intern:*

- Research and Development of a new motion blur technique in high performance ray tracing. (Embree, SIMD, C++, OpenGL, and Maya).

*(08/10 to 12/10) UNC Chapel Hill, NC*

*-* Research assistant, Wide Area Display Systems Group:

(<http://www.cs.unc.edu/Research/stc/Projects/wav.html>)

- Teaching assistant, graduate level computer graphics.

- Teaching assistant, high performance computing offered by NCSA.

- Research assistant, RENCI GPU performance analysis for HPCToolkit.

*(01/03 to 08/04) Cold Spring Harbor Laboratory, NY*

*Software Engineer: International HAPMAP Project**[http://www.hapmap.org](http://www.hapmap.org/)*

- Developed HAPMAP DB backed data management system. (C++ & Perl)

- Automated XML schema to DB schema conversion. (Perl & Java)

- DB schema design, management, and tuning. (Oracle, PostgreSQL, and MySQL)

*(12/00 to 12/02) Ericsson Inc., Woodbury NY*

*Software Engineer: Multimedia Messaging System, MMS:*

- Developed performance monitoring toolkit for high speed network switches (C++ & Perl)

- Designed and developed the Subscriber Provisioning Component of the MMS. (Java)

- Designed and developed the multi-threaded Billing Component of the MMS. (Java & C++)

- Performed performance tuning of the MMS database system. (Oracle)

*(8/98 to 9/99) Cold Spring Harbor Laboratory, NY*

*Intern Software Engineer (50% Cancer Institute and 50% Information Systems):*

*-* Implemented a local version of DNA sequencing program BLAST. (Perl & Perl)

- Developed M-BLAST. (Multi-submission BLAST in Perl)

- Database administration. (Oracle, MySQL, and PostgreSQL)

- UNIX System administration. (Solaris, IRIX, and Linux)

- Business system administration.

*(1/98 to 7/98) Advanced Software Kinetics, Brooklyn NY*

*Intern Software Engineer:*

*-* Developed Polytechnic University’s Chat System. (C++)

- Developed the back end for V-GO Single Sign on system. (C++)

*(1/96 to 8/96) General Electric Power Systems, Schenectady NY*

*Intern Software Engineer:*

*-* Assisted with ISO 9000 initiation efforts.

- AirFoil 3D CAD/CAM. (Unigraphics)

- Numerical Control Programming.

Relevant Course Projects:

- Real-Time SPH fluid simulation in CUDA

- Machine vision, 1st place in image classification competition

- Rigid Body Dynamics simulation on CPU

- Real-time Whitted ray tracer in CUDA

- Massive Crowd Simulation using collision avoidance technique RVO