

Ardavan Kanani
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GitHub: <https://ardook.github.io/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M.S. in Computer Science GPA 3.8 (Withdrawn due to financial difficulties)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://ardook.github.io/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, RENC GPU performance analysis for HPCToolkit.

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

Software Engineer: International HAPMAP Project <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