

NOURA HOWELL

EDUCATION

Olin College of Engineering

B.S. in Engineering with Computing
3.68 GPA, 2008 – 2012
design, software, project management

Mississippi State University

Gap year—pure math for fun
3.46 GPA, 2007 – 2008
graph theory, group theory, topology

PROJECTS

Audiovisual Interactive Art & Tools

Audio processing, user interface, and visualization for real time audio effects, synthesizers, and play. C++, JavaScript. tytel.org/salad, tytel.org/lissa, littleio.co.

Bicycle Powered Water Pump

Water pump inspired by the needs of a Guatemalan bamboo farm, made using locally available materials and methods.

LANGUAGES

Python, JavaScript, C, C++, Java,
conversational French,
a few words of Arabic and Mandarin

FAVORITE TOOLS

D3.js, flask.py, jinja2.py, angular.js,
backbone.js, bootstrap, underscore.js

CONTACT

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EXPERIENCE

The Echo Nest

Boston, MA

Jul 2012 – Apr 2013

Full stack web development, including UI design and development, asynchronous data loading, interactive data visualizations, data analysis, computation parallelization, and databases for sales demos, internal tools, and a management dashboard of tens of thousands of dynamic music objects for SiriusXM. JavaScript, Python.

Accessible Mobile Phone

Rabat, Morocco

Sep 2011 – Jun 2012

As project manager on a team of U.S. and Moroccan students, user research, human centered design process, interface design, and entrepreneurship to enable working illiterate Moroccan adults to independently and affordably make mobile phone calls.

Microsoft Windows 8

Redmond, WA

Jun – Aug 2011

As a program manager intern, drove a showcase app from feature specification to UI design to implementation to bug triage.

One Earth Designs

Xining, China

May – Jul 2011

Immersive user research, field testing, and MATLAB simulation of a durable, portable, affordable parabolic solar cooker for use by nomadic Tibetans in remote regions of the Himalayas in China.

Army Corps of Engineers

Cary, NC

May – Jul 2007

As my first programming project, parallelized a ten thousand line FORTRAN coastal water flow model by inserting OpenMP directives.

RESEARCH

MIT Media Lab

Jul – Oct 2013

As a lab assistant to Ph.D. student Seth Hunter, user studies, data analysis, interface design, software development, and project management consulting for WaaZam!, a networked video environment for people to build their own worlds and have shared experiences at a distance. Contributed to openFrameworks with new user interface components in an addon fork. C++. waaazam.com.

Olin College

Jan – May 2012

L(2,1)-labeling of graph amalgamations and parallelizing automatic labeling algorithms. [dx.doi.org/10.1016/j.dam.2012.11.007](https://doi.org/10.1016/j.dam.2012.11.007)

Olin College Miller Fellowship

Jan – Aug 2009

Knot theory and Khovanov Homology with Dr. Georgi Gospodinov.

North Carolina State University

May – Jul 2006

As a lab assistant, analyzed efficiency of microbial lignin-degrading pretreatment for cotton stalk to ethanol conversion.
[dx.doi.org/10.1016/j.biombioe.2008.04.016](https://doi.org/10.1016/j.biombioe.2008.04.016)