NOURA HOWELL

EDUCATION

Olin College of Engineering

B.S. in Engineering with Computing
3.68 GPA, 2008 – 2012
team projects to learn
design, software, simulation, building

Mississippi State University

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

SKILLS

Python
flask, jinja, django, mongoDB, SQL

JavaScript, HTML, CSS
AJAX, a little node, socket.io
backbone, a little angular
jQuery, bootstrap, underscore
D3, HTML5 Canvas, Web Audio API

git

Java, C, C++, MATLAB

human centered design process
user interviews, needs and values
personas, scenarios, requirements
interface design, mockups, prototypes
usability testing, pilot testing

written, spoken French
music theory, clarinet

arduino, stepper motors
basic woodworking
machete with bamboo
simple sewing

CONTACT

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EXPERIENCE

The Echo Nest — Boston, MA — 2012 - 2013

Web development for huge sets of dynamically structured data, real time logging and monitoring, throttling asynchronous AJAX requests, computation parallelization, custom statistics, and data visualization (JavaScript, Python).

Accessible Mobile Phone — Rabat, Morocco — 2011 - 2012

As project manager on a team of four U.S. and three Moroccan students, mobile phone user research, design iteration, and entrepreneurship to enable illiterate people in Morocco to make phone calls independently.

Microsoft Windows 8 — Redmond, WA — Summer 2011

As a program manager intern, owned and drove a showcase application from feature specification to user interface design to implementation to bug triage.

One Earth Designs — Xining, China — Summer 2010

As an engineering intern, computational modeling, field testing, and immersive user research of a durable, portable, affordable parabolic solar cooker for use in remote nomadic Tibetan regions of the Himalayas (MATLAB).

Army Corps of Engineers — Cary, NC — Summer 2008

As a high school senior computer consultant, parallelized 10K+ lines of coastal water flow model with OpenMP to reduce simulation time (FORTRAN, OpenMP).

PROJECTS

Audiovisual Interactive Web Demos — 2013

Audio processing, drawing, and custom controls for simple, playful wave visualizers and synthesizers. Chrome only: Lissa, Salad, Dancey Dots (JavaScript).

Digital Signal Processing Audio Effects — 2011 – 2013

On a team of two, real time audio effects and synthesizers, including delay, filters, and envelopes, and UI design and implementation (C++).

Task Board Website — Fall 2011

As group manager on a team of four students, user research, personas, interface design, usability testing, and implementation of a website for posting and customizing reminder notes by day (jQuery, CSS).

Suggest Places to Go Android App — Spring 2011

On a team of three students, Markov analysis of Foursquare checkins to recommend nearby Yelp places to go next (Java).

RESEARCH

Olin College Graph Theory Research — Spring 2012

As a student researcher for Dr. Sarah Spence Adams, graph theory research in L(2,1)-labeling and parallelizing automated labeling algorithms (Python).

Olin College Miller Fellowship — Spring – Summer 2009

As a student researcher for Dr. Georgi Gospodinov, math research in knot theory and Khovanov Homology.

North Carolina State University — Summer 2006

As a high school lab assistant for Jian Shi and Dr. Ratna Sharma-Shivappa, analyzed effectiveness of P. chrysosporium cotton stalk pretreatment for ethanol production.