

Dale Markowitz

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EDUCATION

Princeton University

2011-2015

AB in Computer Science

Departmental GPA: 3.74, Total GPA: 3.6

Relevant Coursework: Artificial Intelligence, Operating Systems, Graph Theory, Reasoning about Computation, Algorithms and Data Structures, HCI Technology, Circuit Design

RELEVANT EXPERIENCE

A Brain-Computer Interface for Sustained Visual Attention

2014-2015

Senior Thesis with Kenneth Norman

Using an wireless EEG headset, designed a system for online analysis of EEG data to measure sustained attention during a face/place feature recognition task. Using a classifier trained on this data, provided real-time neurofeedback to improve attention.

BeagleCache

Fall 2013, Summer 2014

Fall/Summer Independent Work with Vivek Pai

In order to provide faster Internet access in developing world countries, created a network accelerator platform for the Beaglebone Black, a credit-card-sized Linux computer. Implemented HTTP caching as well as compressed HTTP data exchange between high and low bandwidth BeagleCache devices (built in C and Node.js), creating a mesh of network-accelerator nodes.

SRON: A Software-Defined Overlay Network

Spring 2014

Spring Independent Work with Jennifer Rexford

Using Pyretic, a high-level Software-Defined Networking controller platform, built a virtual overlay network. This application, called SRON, allows Internet Service Providers to better control which paths their data takes across interdomain boundaries by providing an abstracted virtual network over the physical Internet backbone.

Floored Inc

Summer 2013

Engineering Intern

Built a high-resolution 3D scanner for reconstructing/modeling interior spaces using a precision laser rangefinder and DSLR camera mounted atop a rotating platform.

Entrepreneurs Roundtable Accelerator

Summer 2012

Design Intern

Designed ERA infographic, brochures and marketing material.

EXTRACURRICULAR ACTIVITIES

Princeton Makers Collective

2013-2015

Programs Organizer

Organized programs and events for the Princeton hacking and making group on campus. Brought in speakers from the hackspace NYC Resistor and the 3D printing company Shapeways to give presentations. Organized and taught a class on 3D modeling with OpenScad and Inkscape.

Princeton Women in Computer Science

2014-2015

Peer Mentor

Provided guidance and recommendations to underclassmen who are considering studying Computer Science.

Orange Key Tours

Summer 2014

Tour Guide

Led tours of the Princeton campus, explaining the academic, extracurricular, and historic aspects of life as a student at Princeton.

Keller Center Fellow

2014-2015

Fellowship Grant Recipient

With a grant from the Keller Center, an organization which promotes entrepreneurship on campus, I ran a workshop on creating USB devices with microcontrollers and novel sensors (foot pedals, light sensors, etc).

Institute of Making at UCL

Fall 2013

Active Member

Member of University College London's MakerSpace, active use of 3D printers, laser cutter, soldering irons, etc.

Hack Classes Instructor

2013

Princeton Entrepreneurship Club

Taught WordPress development class, helped organize iOS and Web development classes.

PUBLICATIONS/PRESENTATIONS

BeagleCache: A Caching Proxy for the Developing World

2014

Carnegie Mellon Undergraduate Conference in Information Systems

Publication and presentation won "Most Promising Research".

IoT Device Presentation

2013

Fordham Eighth Law and Information Society symposium

Created and presented an Internet of Things device at the Princeton/Fordham conference, "What Are Your Shoes Saying To Your Car? Assessing the Internet of Things." Designed a wireless, color-changing bedside lamp that, in conjunction with an iOS To-Do application, indicated how much of a To-Do List was completed.

SKILLS

<i>Software</i>	Linux (Arch, Ubuntu, Debian, Fedora) Python, C, Javascript/Node, Java
<i>Electronics</i>	Eagle (Circuit Design), Arduino, Soldering
<i>Design</i>	OpenScad (Parametric 3D modeling), Photoshop, Inkscape