Drew E. Harry

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EDUCATION

2002-PRESENT **OLIN COLLEGE OF ENGINEERING. NEEDHAM, MA**
B.S. ELEC/COMP ENG 2006; FULL ACADEMIC MERIT SCHOLARSHIP

RELEVANT COURSEWORK

Software and computing
Design of Software Systems, Engineering Computing, Foundations of Computer Science, Human Factors/Interface Design, Computer Architecture

Electrical and mechanical engineering
Intro to Circuits and Electronics, Signals and Systems, Thermodynamics, , Mechanical Design, Analog and Digital Communication

General math and science
Materials Science, Principles of Modern Biology, Applied Mathematical Methods, Discrete Mathematics

Design/Anthropology
User Oriented Collaborative Design, Sustainable Design, Intro Cultural/Social Anthropology, Culture, Knowledge, and Creativity

SPECIAL PROJECTS AND REPORTS

Graph Abstraction Through Centrality Erosion and k-Clique Minimization	Designed and implemented algorithms for visually simplifying complex graphs using graph theory techniques.
MotoSCOPE: Senior Capstone Design Project	Working with a team of Olin students, we are designing, developing, and studying prototype location-based services.
Bridging Worlds: How Offline Relationships Affect Online Sociality in World of Warcraft	Conducted a Senior Capstone project exploring the ways in which offline sociality affects sociality within a synthetic world using ethnographic methods.
Complementing Not Competing: The Internet and American Go Communities	With a partner, described the relationship between online and offline Go clubs and communities using ethnographic methods.
Bike Messengers Product Design Project	Worked on an interdisciplinary design team to conduct a bottom-up user oriented design process creating two product models for bike messengers.

An extensive portfolio of my work can be found at http://students.olin.edu/dharry/portfolio

EMPLOYMENT HISTORY (SELECTED)

Summer 2005 **Motorola Labs, User Centered Solutions Lab** **Schaumburg, IL**
Intern
Developed a prototype music presence system to run on an existing cell-phone network. Tested it with a group of four users and wrote a report summarizing my findings. Based on these results, I designed and implemented a high-fidelity prototype, including a mobile phone interface, server software to manage communication between users, and a web interface. My project is being expanded and continued by the Motorola team.

Summer 2004 **IBM Research (Watson Research Center)** **Cambridge, MA**
Intern
Studied co-authorship social networks and explored the relationship between network topography and real-life metrics. Developed an innovative visualization for understanding how data represented as trees evolve over time. Java-based software analyzed complex time-varying organizational structures and summarized the information graphically.

Summer 2002 **Rhode Island Hospital** **Providence, RI**
Research Assistant **Orthopedic Biomechanics Laboratory**
Created a LabVIEW software system to acquire, display, analyze, and store data from an MTS load frame. Worked with engineers and medical residents on a study of the mechanical

properties of spinal disks. Wrote a Matlab program (with GUI) to synthesize large amounts of data and find patterns.

Sept 2001-May 2002 **Université Catholique de Louvain** **Louvain la Neuve, Belgium**
Research Assistant

Designed and tested a suite of data acquisition tools (including calibration and analysis) for a human locomotion experiment. Project executed in LabVIEW. Prepared for and assisted with experiment setup in a European Space Agency airplane in Bordeaux, France.

Summer 2001 **Rhode Island Hospital** **Providence, RI**
Research Assistant **Orthopedic Biomechanics Laboratory**

Designed and maintained a wide range of software tools, including a biomechanical analysis program and group graph generation tool. Worked with an outside company to acquire and analyze head/helmet impact data with proprietary multi-axis accelerometers.

Summer 2000 **Sensory Technologies, Inc.** **Providence, RI**
Assistant Engineer

Developed custom software for building patent databases. Developed custom software toolbox in MS Excel for analysis and presentation of data acquired from human stance studies, in collaboration with the Boston University Center for Biodynamics. Provided financial analysis to aid in business development.

Summer 1999 **NMT Medical, Inc.** **Boston, MA**
Assistant Engineer

Designed, documented, and verified a new automated, computer-vision based system for measuring geometry of heart implant components. Expanded existing manufacturing procedures to facilitate fabrication of new cardiovascular device prototypes, including custom software, CNC machining, and laser welding. Executed study on defective manufacturing parts, including written technical report, analysis, and recommendation for corrective action.

Leadership and Awards

Awarded Seed Venture Funding From YCombinator ***2005***

President, Olin College Council of Olin Representatives (student government) ***2003-2004***

Single student representative to Olin College Strategic Planning Committee.

Skills

Computer Proficiency

- Java — Prototype application development, including GUIs. Very comfortable in Eclipse.
- Web technologies — PHP, XML, SQL, HTML, CSS, JavaScript.
- Engineering software — Very proficient at both ad-hoc Matlab and GUI application development. Extensive experience with LabVIEW application development for data acquisition, analysis and presentation. Experienced with SolidWorks CAD.
- Very adaptable; can learn new applications quickly. Comfortable on all OSs.

User Research

- Familiar with a range of ethnographic methods, including participant observation, semi-structured interviews, audio diaries. Have used coding and affinities for qualitative analysis.
- Experienced with a variety of design methodologies, including personas, card sorting, heuristic evaluation, goal identification. Some experience with usability studies.
- Prototyping strategies, including wire-framing, paper prototypes, technical prototypes.

Other Skills

- Solid communication skills including formal technical reports, user manuals, academic papers, and some experience with social science writing.
- Very comfortable with oral communication and presentations.