LEESHA V. MALIAKAL

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EDUCATION

Northwestern University **Evanston, IL**

Bachelor of Arts, Computer Science, June 2015 *2010-2015*

Relevant Coursework: Human Computer Interaction, Introduction to Databases, Introduction to Networking, Natural Language Processing, Design and Analysis of Algorithms, Computer Game Design, 3D Game Development Studio, Tangible Interface Design and Learning, Software Development and Project Management, Machine Learning, Social Computing and Crowdsourcing, Design, Technology and Research

RESEARCH INTERESTS

I hope to use human-centered design to build innovative technology that will enhance and extend the natural ways in which humans reflect, learn, grow, and provide support for one another. My current interest is to study the ways in which we can use technology within collaborative and learning environments to build empathy and foster support among interacting individuals.

Areas: Human Computer Interaction, Computer Supported Cooperative Work, Social Computing, Crowdsourcing

PROJECTS

Crowdsourcing Research: CrowdCheer *Fall 2014-present*

Studying the ability to leverage ad-hoc crowds for the completion of real-time tasks in the physical world, specifically, crowdsourcing motivation for marathon runners from the crowd of spectators. Studying methods of motivating crowdworker participation by scaffolding requests off of existing crowdworker behavior.

Crowdsourcing Research: inShape *Fall 2014*

Studied the ability to improve campus health by encouraging physical activity via coordinated collective experiences. Studied how we might collect valuable data from physical activities molded into physical crowdsourcing tasks.

Social Computing Research: DIY Concert Location Information Disclosure *Fall 2014*

Studied the location disclosure patterns of garage/basement concert performers to understand patterns of implicit vs. explicit venue disclosure over social media in the context of unwanted attention from law enforcement/concert crashers.

Make-a-thon Design: Campus Health Design Charrette *Fall 2014*

Designed and facilitated a design charrette where novice designers learned to first understand the existing contributors to student health problems on the Northwestern Campus, and to then brainstorm and storyboard concrete solutions.

Mobile Applications: Foodly and WortTimer *Spring 2014*

Worked on a team of six to design two mobile web apps: Foodly for kitchen owners that allows the user to input all groceries and ingredients as inventory and generates a list of online recipes that can be made. WortTimer for homebrewers that allows the user to time out the different preparation steps of the homebrewing process. WortTimer was managed by two clients.

Tangible Interface Design *Spring 2014*

Worked on a team of five to design a tangible learning interface, Color Beads - connectable, colorful beads that can link to each other and change color to produce a gradient from the first bead to the last. The goal of the design is to provide

a simple interface that allows children to understand traditionally complex concepts like color blending and color theory via simple visual and tangible experiences.

3D Game Development *Spring 2013*

Worked on a team of four to design and develop a 2-player 3D Microsoft Kinect video game in C# using Unity 3D Game Engine. During the interactive racing game, the players alternate between two roles: navigating down a hill and placing obstacles down for their opponent.

EXPERIENCE

Delta Lab **Evanston, IL**

Researcher *Summer 2014-present*

- Studying the crowdsourcing of motivation for marathon runners from spectators.
- Assisting in the design of the curriculum & processes for the Design, Technology, and Research program.
- Studying real time, physical crowdsourcing and social computing systems.

Brave Initiatives **Evanston, IL**

Coding Instructor *Summer 2015-present*

- Developing a week-long curriculum for Brave Camp that empowers high school girls.
- Teaching high school girls basic web development skills and walking them through building their first website.

AT&T: TDP Emerging Technologies **Hoffman Estates, IL**

Software Development Intern *Summer 2014*

- Redesigned UI for development documentation pages, redesigned UI of testing and automation API tools using Angular.js.
- Developed a mobile web app for a nationwide employee hackathon with a team of four, received high marks.
- Migrated testing framework (Windows to Linux) and debugged 122 Jenkins jobs to resolve the running of 5000+ test scripts.

Northwestern University Information Technology **Evanston, IL**

Admin Lead Consultant, Technology Support Center *2010-2014*

- Managed Lead Consultant team to ensure the development of resources, including the IT departmental website, internal Wiki, and knowledge base to improve content and usability for employees and end users.
- Supervised, evaluated, and mentored student consultants; strengthened teamwork skills among consultants to quickly resolve software issues and complete project work; organized and conducted testing of University systems prior to deployment.
- Reviewed applications and conducted interviews for Consultant and Lead Consultant positions.
- Fielded requests (calls, chats, and emails) from faculty, staff, and students across the University regarding technology concerns, provided hands-on support for configurations and virus remediation.

GRANTS, HONORS, & AWARDS

ACM Student Research Competition: Second Place Finalist *Summer-Fall 2015*

Submitted an abstract (*CrowdCheer: Situational Crowdsourcing of Motivation for Runners*) to Grace Hopper ACM SRC, participated in a poster session during the Grace Hopper Conference, advanced to final rounds to give a presentation and placed second out of 39 participants from across disciplines in Computer Science.

Northwestern Undergraduate Research Grant *Winter 2015*

Academic Year Undergraduate Research Grants provide up to $1,000 to pay for research expenses to do an independent academic or creative project in any field and is connected to an independent study or thesis seminar.

Mini Puzzle Hunt: First Place Team *January 2014*

Participated in a Northwestern Puzzle Hunt, which was a miniature version of the Microsoft Puzzle Challenge. Worked on a team of 4, competed against 50 other students, and awarded first place.

Student Employee of the Year Nominee *2013*

Nominated for achievement and excellence as a work-study student employee. Issued by the Midwest Association of Student Employment in conjunction with the National Student Employment Association.

Consultant of the Year *2010-2011*

Awarded for a high standard of work ethic, 100% satisfactory customer service, strong technical experience or shows good use of resources, and exceptional reliability and punctuality.

PUBLICATIONS & PRESENTATIONS

L. Maliakal (2015). "CrowdCheer: Situational Crowdsourcing of Motivation for Runners." Grace Hopper ACM Student Research Competition, *Extended Abstract, Poster, and Presentation*

S. Cambo, **L. Maliakal**, F. Avino, Z. Witten (2014). "Analyzing Location Disclosure Habits Among Online Do-It-Yourself Concert Communities" *Working Paper*

M. Horn, P. Hayes, **L. Maliakal,** M. O'Neil, G. Sheldon, S. Zeng (2014). "Color Beads: A Tangible Learning Tool for Children." *Working Paper*

TECHNICAL SKILLS

C/C++, C#, Objective C, Swift, Assembly, SQL, JavaScript, HTML5, CSS3, XML, PhoneGap, jQuery/jQuery Mobile, UNIX, Jenkins, VIM

ACTIVITIES

Member of: Lean In Computer Science + Engineering, Anita Borg Institute Chicago Chapter, Systers Community, AAAI, ACM, ACM-W, Northwestern Chapters of IEEE, Women in Computing, Society of Women Engineers

REFERENCES

- Dr. Haoqi Zhang: Assistant Professor of Electrical Engineering and Computer Science (Northwestern University)
- Dr. Liz Gerber: Associate Professor of Design (Northwestern University)
- Dr. Christopher Riesbeck: Associate Professor of Electrical Engineering and Computer Science (Northwestern University)