

GAURAV PARUTHI

Ph.D. Candidate, University of Michigan, School of Information

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RESEARCH INTERESTS

HCI, UbiComp, Health, Data Mining, ICTD

EDUCATION

Ph.D. Information Science

University of Michigan, Ann Arbor, MI

Fall 2011- Present

Graduate Certificate in Computational Discovery and Engineering

Expected Winter 2015

B.E.(Honors) Electrical and Electronic Engineering

Birla Institute of Technology and Science, Pilani, India

Fall 2005-2009

PROFESSIONAL EXPERIENCE

Graduate Student Research Assistant, University of Michigan

My work centers around building context-aware applications for health.

Fall 2011 - Present

Graduate Student Instructor, University of Michigan

Pervasive Interaction Design and Networked Computing: Storage, Communication, and Processing

Fall 2013 - Winter 2014

Research Internships

- Telefonica Research, Madrid, Spain
- Microsoft Research, Bangalore, India
- Elab, INSEAD, Singapore
- Yahoo! Research, Bangalore, India

Summer 2013

June 2009 - May 2010

Fall 2008

Summer 2008

Research Developer, Microsoft Research

2010 - 2011

PUBLICATIONS

Paruthi G., Frias-Martinez E., Frias-Martinez V. **Understanding Lending Behaviors on Online Microlending Platforms: The Case for Kiva** in *International AAAI Conference on Weblogs and Social Media, 2015- ICWSM '15*

Paruthi G., **User-Similarity for Recommending Lifestyle and Behavior Changes**, *Personalizing Behavior Change Technologies Workshop - CHI '14*

Dong T., Ackerman M., Newman M., Paruthi G., **Social Overlays: Collectively Making Websites More Usable**, in *Proceeding - INTERACT '13*

Ittan S., Paruthi G., Thies W., **Mapping Large Educational Websites to Interactive DVDs**, in *International Conference on Technology for Education 2012 - T4E '12*

Paruthi G., Thies W., **Utilizing DVD players as low cost offline Internet Browsers** in *Proceedings of ACM Conference on Human Factors in Computing Systems - CHI '11 Best of CHI Honorable Mention*

Gaikwad K., Paruthi G., Thies W., **Interactive DVD as a Platform for Education** in *Proceedings of the Int. Conf. on Information and Communication Technologies and Development, London - ICTD '10*

Sumbaly R., Kumar A., Paruthi G., Malhotra S., **Artificially Intelligent Grid Assistant** in *Proceedings of the International Conference on High Performance Computing - HiPC '07*

SKILLS

Programming: Python, C/C++, Java, Javascript, Matlab, SQL

Frameworks: jQuery, Git, Django, Flask, Redis, MongoDB

Machine Learning Techniques: Classification - decision trees, SVM, HMM, etc.; Time-Series Forecasting - ARIMA, Holt Winters; Clustering - K-means, EM

Data Science: R, Pandas, Hadoop, D3.js

Usability and Design: Experimental design, user interviews, surveys, paper prototypes, A/B test

SELECTED RESEARCH PROJECTS

Overcoming Barriers in Maintaining Healthy Behavior

Advisors: Prof. Mark W Newman and Prof. Predrag Klasnja (University of Michigan) Fall 2013 - Present

There is little research in understanding how we maintain healthy behavior. In this work, I leverage the growing use of health tracking devices to understand the barriers in maintaining healthy behavior. In the first study, we propose and evaluate a Crowdsourcing algorithm to generate Contextualized Behavior Change Messages.

Following this study, I plan to build a novel system that supports maintaining of physical activity among users.

StoneSoup- A Community driven Proactive Display System

Advisor: Prof. Mark W Newman (University of Michigan)

Fall 2012 - Winter 2013

Proactive displays facilitate interaction and increase awareness in collocated communities. We are building a community driven proactive display system that allows its users to personalize content for the display. The system is designed to support the creation, appropriation, and discovery of content over different settings of appearance, social context and time.

Lending behavior in Micro-lending websites

Summer 2013

Advisor: Dr. Vanessa Frias Martinez (Telefónica Research)

I analyzed the publicly available Kiva dataset to extract patterns of lending behavior across geographical locations, occupations, micro-finance institutions and teams. Our findings show some interesting and unexpected results for lending patterns across countries with varying development indicators. These could have implications for micro-lending websites in general. The work is to be submitted to academic venues in the CSCW or ICTD domain.

Utilizing DVD Players as offline Internet Browsers

Fall 2009 - Winter 2010

Advisor: Dr. Bill Thies (Microsoft Research)

The project leveraged the capabilities of the standard TV DVD player to view interactive educational content like Wikipedia, children books and PowerPoint slides.

LEADERSHIP ACTIVITIES

Student Coordinator , ICTD Research Group - GRID, University of Michigan	<i>Fall 2011 - Fall 2013</i>
Founding & Nucleus Member , Center for Software Development, BITS Pilani	<i>2006-2009</i>
Founding Member Linux Users Group, BITS Pilani, Goa	<i>2008</i>
Member of Student Organizing Committee International Workshop of Biosensors	<i>2006</i>

AWARDS AND HONORS

First , Exposition, School of Information, University of Michigan	<i>2013</i>
First , Kaggle Competition for the Course SI-721 Data Mining,	<i>2012</i>
First , ICTD'12 Full Scholarship,	<i>2012</i>
National Finalist , for Google Product Prodigy,	<i>2009</i>
First Prize , CSC Innovation Icon,	<i>2008</i>
National First Runner-Up , in Microsofts Imagine Cup, in Software Design, Out of 4000 Teams.	<i>2007</i>
First , International Online Hacking Contest (IOHC),	<i>2008</i>
First , Binary Pirates, Indias first Capture the flag hacking contest, Quark	<i>2008</i>

OTHER ACTIVITIES

Webmaster,

- Human Computer Interaction Consortium (HCIC) *Aug 2013 - present*
- Interaction Ecologies Group, University of Michigan *Jan 2014 - present*

Reviewer,

- ACM CHI 2015
- ACM CSCW 2013
- ACM ICTD 2013

Student Volunteer,

- ACM CSCW 2014
- ACM CHI 2014