

Manaswi Saha

PHD STUDENT IN COMPUTER SCIENCE AND ENGINEERING

Paul G. Allen School of Computer Science and Engineering, University of Washington, Seattle, WA - 98195, USA

✉ manaswi@cs.washington.edu | 🏠 homes.cs.washington.edu/ manaswi/ | 📧 manaswis | 🌐 manaswisaha

Research Interests

Human Computer Interaction, Urban Informatics, Accessibility, Ubiquitous Computing, Internet of Things, Technology for Development

Education

University of Washington

Seattle, USA

PH.D. IN COMPUTER SCIENCE AND ENGINEERING (ADVISOR: PROF. JON FROEHLICH)

September 2017 - Present

University of Maryland

College Park, USA

PH.D. IN COMPUTER SCIENCE (ADVISOR: PROF. JON FROEHLICH) - transferred to University of Washington

August 2015 - August 2017

Dean's Fellowship 2015 - 2017

Vellore Institute of Technology (VIT) University

Vellore, India

MASTER OF COMPUTER APPLICATIONS (MCA)

July 2009 - May 2012

Top 3 in the MCA batch of 2012

University of Mumbai

Mumbai, India

BACHELOR OF SCIENCE - INFORMATION TECHNOLOGY (B.Sc.IT)

June 2006 - April 2009

Top 3 in the B.Sc.IT batch of 2009

Honors & Awards

2016	ACM-W Scholarship	ACM CHI 2016	San Jose, USA
2016	CRA-W Grad Cohort Participation Grant	Grad Cohort Workshop 2016	San Diego, USA
2015	Dean's Fellowship	University of Maryland, College Park (2015 - 2017)	College Park, USA
2014	Microsoft Research India Travel Grant	ACM e-Energy 2014	Cambridge, UK
2012	Merit Scholarship	VIT University (2009 - 2012)	Vellore, India
2012	Certificate of Merit	Top 1% MCA batch (2009 - 2012)	Vellore, India
2009	Certificate of Merit	Top 1% B.Sc.IT batch (2006 - 2009)	Mumbai, India
2009	Certificate of Merit	1st position for Final year B.Sc.IT Project	Mumbai, India

Publications

PEER-REVIEWED CONFERENCE PAPERS

2017	[P.5]	Exploring Novice Approaches to Smartphone-Based Thermographic Energy Auditing: A Field Study Matthew L Mauriello, Manaswi Saha , Erica Brown, Jon E. Froehlich ACM CHI 2017. Denver, USA. (Acceptance Rate: 25% [606/2424])
2015	[P.4]	SensorAct: A Decentralized and Scriptable Middleware for Smart Buildings Pandarasamy Arjunan, Manaswi Saha , Haksoo Choi, Manoj Gulati, Amarjeet Singh, Pushpendra Singh, Mani B. Srivastava IEEE UIC 2015. Beijing, China. (Acceptance Rate: 30.6%)
2014	[P.3]	WattShare: Detailed Energy Apportionment in Shared Living Spaces within Commercial Buildings Shailja Thakur, Manaswi Saha , Amarjeet Singh, Yuvraj Agarwal ACM BuildSys 2014. Memphis, USA. (Acceptance Rate: 27%)

[P.2] **EnergyLens: Combining Smartphones with Electricity Meter for Accurate Activity Detection and User Annotation**
Manaswi Saha, Shailja Thakur, Amarjeet Singh, Yuvraj Agarwal
ACM e-Energy 2014. Cambridge, UK. (*Acceptance Rate: 20%*)

2012 [P.1] **Bandwidth Management Framework for Multicasting in Wireless Mesh Networks**
Manaswi Saha, P. Venkata Krishna
IJEE 2012. Vol. 2, No. 3.

PEER-REVIEWED POSTERS, EXTENDED ABSTRACTS AND WORKSHOPS

2017 [EA.3] **A Pilot Deployment of an Online Tool for Large-Scale Virtual Auditing of Urban Accessibility**
Manaswi Saha, Kotaro Hara, Soheil Behnezhad, Anthony Li, Michael Saugstad, Hanuma Maddali, Sage Chen, Jon E. Froehlich
ASSETS 2017. Poster & Demo. Baltimore, USA.

2016 [EA.2] **The Future Role of Thermography in Human-Building Interaction**
Matthew L. Mauriello, M. Dahlhausen, E. Brown, **Manaswi Saha**, Jon E. Froehlich
CHI 2016 Workshop: Future of Human-Building Interaction. San Jose, USA.

2013 [EA.1] **SensorAct: Design and Implementation of Fine-grained Sensing and Control Sharing in Buildings**
Pandarasamy Arjunan, **Manaswi Saha**, Manoj Gulati, Nipun Batra, Amarjeet Singh, Pushpendra Singh
USENIX NSDI 2013. Poster. Lombard, USA.

Patents

2017 [Pa.1] **Digital Content Output Control in a Physical Environment Based on a User Profile**
Manaswi Saha, Tom Jacobs, David Tompkins, Peter Franssen
Adobe Research. Filed in February 2017. Patent Pending.

Talks and Conference Presentations

2017 [T.4] **Project Sidewalk: Assessing Urban Accessibility using Crowdsourcing and Google Street View**
Manaswi Saha, Jon Froehlich
HCIL Symposium 2017. College Park, Maryland. May 2017.

2016 [T.3] **Interactive Computational Tools For Accessibility**
Manaswi Saha, Ladan Najafizadeh, Meethu Malu, Uran Oh, Lee Stearns
UMD Diversity in Computing Summit. College Park, Maryland. November 2016.

[T.2] **Tech+Design: Interaction Design For A Purpose**
Majeed Kazemitabaar, Soheil Behnezhad, **Manaswi Saha**, Liang He
Technica: Tech+X Talk Series. College Park, Maryland. November 2016.

2014 [T.1] **EnergyLens: Combining Smartphones with Electricity Meter for Accurate Activity Detection and User Annotation**
Manaswi Saha, Shailja Thakur, Amarjeet Singh, Yuvraj Agarwal
Fifth International Conference on Future Energy Systems (ACM e-Energy). Cambridge, UK. June 2014.

Research Experience

University of Washington

GRADUATE RESEARCH ASSISTANT
Advisor: Prof. Jon Froehlich

Seattle, USA

September 2017 – present

University of Maryland

GRADUATE RESEARCH ASSISTANT
Advisor: Prof. Jon Froehlich

College Park, USA

August 2016 – August 2017

Adobe Research

RESEARCH INTERN

Mentors: Tom Jacobs and David Tompkins

San Jose, USA

May 2016 – August 2016

Indraprastha Institute of Information Technology, Delhi

RESEARCH ASSOCIATE

Advisor: Prof. Amarjeet Singh

New Delhi, India

November 2012 – July 2015

Teaching Experience

University of Maryland, College Park

GRADUATE TEACHING ASSISTANT

Department of Computer Science

College Park, USA

August 2015 – May 2016

CMSC132: Object-Oriented Programming II

Spring 2016

CMSC131: Object-Oriented Programming I

Fall 2015

Mentorship

2017 Sage Chen, Sophomore, University of Michigan
Aditya Dash, Senior, University of Maryland
Steven Bower, Senior, University of Maryland
Chirag Shankar, Junior, University of Maryland
Ryan Holland, Senior, Montgomery Blair High School
Anthony Li, Freshman, University of Maryland
Maria Furman, Senior, University of Maryland
Ji Hyuk Bae, Freshman, University of Maryland

Service

2016 Adobe Girls Who Code Mentor

2016 ACM CHI16 Student Volunteer

Courses Taken

University of Maryland, College Park

CMSC723: Computational Linguistics I, CMSC733: Computer Processing of Pictorial Information, CMSC838L: HCI Reading Seminar, CMSC818D: Human Factors in Security and Privacy, CMSC818G: Information Centric Design of Systems, CMSC634: Empirical Research Methods in Computer Science

VIT University (selected ones)

Discrete Mathematics, Data Structures, Operating Systems, Algorithm Analysis and Design, Pervasive Computing, Mobile Computing, Software Engineering, Database Management Systems, Open Source Programming, Computer Networks

Technical Skills

Programming Languages ♥ Python, Java, C, C++, HTML/CSS, Shell Scripting, JavaScript

Data Analysis Tools Python (pandas, numpy, matplotlib, sklearn)

Web Frameworks Django, Play

Database Tools MySQL, PostgreSQL, MongoDB

Software Tools Latex, Github, Eclipse