

Edison Thomaz

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Education

2010–2016 **Georgia Institute of Technology, Ph.D., Human-Centered Computing**

Area: Ubicomp, HCI, Machine Learning, Health Computing

Advisors: Dr. Gregory D. Abowd and Dr. Irfan Essa

2000–2002 **Massachusetts Institute of Technology, S.M., Media Arts and Sciences**

Area: HCI, Context-Aware Computing

Advisor: Dr. Andy Lippman

1995–1999 **The University of Texas at Austin, B.A., Computer Science**

Area: Human-Computer Interaction, Multimedia

Advisors: Dr. Harrick Vin and Dr. Greg Lavender

Appointments

2016–Present **Research Assistant Professor, ECE and iSchool, The University of Texas at Austin**

2010–2016 Graduate Research Assistant, College of Computing, Georgia Institute of Technology

2007–2010 Founder and Principal, Slife Labs, LLC, Atlanta, GA

2004–2007 Research Scientist, France Télécom R&D Boston, Cambridge, MA

2002–2004 Program Manager, Microsoft Corporation, Redmond, WA

2000–2002 Graduate Research Assistant, MIT Media Lab

1999–2000 Software Engineer, Sapient, Austin, TX

Honors and Awards

- 2017 Google Faculty Research Award
- 2015 Best Paper Honorable Mention, ACM CHI
- 2015 Best Short Paper, ACM IUI
- 2014 George Fellow, Georgia Institute of Technology
- 2001 MIT Media Lab British Telecom Fellowship
- 2000 MIT Media Lab British Telecom Fellowship

Publications

Journals

- [1] Chun, Keum San, Bhattacharya, Sarnab, **Edison Thomaz**. "Detecting Eating Episodes by Tracking Jawbone Movements with a Non-Contact Wearable Sensor". *To appear in the Proceedings of the ACM Interact. Mob. Wearable Ubiquitous Technol.* (2018).
- [2] Dimiccoli, Mariella, Marín, Juan, **Edison Thomaz**. "Mitigating Bystander Privacy Concerns in Egocentric Activity Recognition with Deep Learning and Intentional Image Degradation". In *Proceedings of the ACM Interact. Mob. Wearable Ubiquitous Technol.* 1, 4, Article 132 (January 2018).
- [3] Choe, Eun Kyoung, Saeed Abdullah, Mashfiqui Rabbi, **Edison Thomaz**, Daniel A. Epstein, Felicia Cordeiro, Matthew Kay et al. "Semi-automated tracking: A balanced approach for self-monitoring applications." *IEEE Pervasive Computing* 16, no. 1 (2017): 74-84.

Book Chapters

- [1] **Thomaz, Edison**, Irfan A. Essa, and Gregory D. Abowd. "Challenges and Opportunities in Automated Detection of Eating Activity." In *Mobile Health*, pp. 151-174. Springer, Cham, 2017.

Conferences

- [1] Adams, Roy, Nazir Saleheen, **Edison Thomaz**, Abhinav Parate, Santosh Kumar, and Benjamin Marlin. "Hierarchical span-based conditional random fields for labeling and segmenting events in wearable sensor data streams." In *International Conference on Machine Learning (ICML)*, pp. 334-343. 2016.
- [2] Bedri, Abdelkareem, Apoorva Verlekar, **Edison Thomaz**, Valerie Avva, and Thad Starner. "Detecting mastication: A wearable approach." In *Proceedings of the 2015 ACM on International Conference on Multimodal Interaction (ICMI)*, pp. 247-250. ACM, 2015.

- [3] Castro, Daniel, Steven Hickson, Vinay Bettadapura, **Edison Thomaz**, Gregory Abowd, Henrik Christensen, and Irfan Essa. "Predicting daily activities from egocentric images using deep learning." In Proceedings of the 2015 ACM International Symposium on Wearable Computers (ISWC), pp. 75-82. ACM, 2015.
- [4] **Thomaz, Edison**, Irfan Essa, and Gregory D. Abowd. "A practical approach for recognizing eating moments with wrist-mounted inertial sensing." In Proceedings of the 2015 ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp), pp. 1029-1040. ACM, 2015.
- [5] Bedri, Abdelkareem, Apoorva Verlekar, **Edison Thomaz**, Valerie Avva, and Thad Starner. "A wearable system for detecting eating activities with proximity sensors in the outer ear." In Proceedings of the 2015 ACM International Symposium on Wearable Computers (ISWC), pp. 91-92. ACM, 2015.
- [6] Cordeiro, Felicia, Daniel A. Epstein, **Edison Thomaz**, Elizabeth Bales, Arvind K. Jagannathan, Gregory D. Abowd, and James Fogarty. "Barriers and negative nudges: Exploring challenges in food journaling." In Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems (CHI), pp. 1159-1162. ACM, 2015.
- [7] **Thomaz, Edison**, Cheng Zhang, Irfan Essa, and Gregory D. Abowd. "Inferring meal eating activities in real world settings from ambient sounds: A feasibility study." In Proceedings of the 20th International Conference on Intelligent User Interfaces (IUI), pp. 427-431. ACM, 2015.
- [8] Bettadapura, Vinay, **Edison Thomaz**, Aman Parnami, Gregory D. Abowd, and Irfan Essa. "Leveraging context to support automated food recognition in restaurants." In Applications of Computer Vision (WACV), 2015 IEEE Winter Conference on, pp. 580-587. IEEE, 2015.
- [9] **Thomaz, Edison**, Aman Parnami, Irfan Essa, and Gregory D. Abowd. "Feasibility of identifying eating moments from first-person images leveraging human computation." In Proceedings of the 4th International SenseCam & Pervasive Imaging Conference, pp. 26-33. ACM, 2013.
- [10] **Thomaz, Edison**, Aman Parnami, Jonathan Bidwell, Irfan Essa, and Gregory D. Abowd. "Technological approaches for addressing privacy concerns when recognizing eating behaviors with wearable cameras." In Proceedings of the 2013 ACM International Joint Conference on Pervasive and Ubiquitous computing (UbiComp), pp. 739-748. ACM, 2013.
- [11] **Thomaz, Edison**, Vinay Bettadapura, Gabriel Reyes, Megha Sandesh, Grant Schindler, Thomas Plötz, Gregory D. Abowd, and Irfan Essa. "Recognizing water-based activities in the home through infrastructure-mediated sensing." In Proceedings of the 2012 ACM Conference on Ubiquitous Computing (UbiComp), pp. 85-94. ACM, 2012.

Theses and dissertations

- [1] **Thomaz, Edison**. "Automatic eating detection in real-world settings with commodity sensing." PhD Dissertation, Georgia Institute of Technology, 2016.
- [2] **Thomaz, Edison**. "Practical food journaling." In Proceedings of the 2013 ACM Conference on Pervasive and Ubiquitous Computing Adjunct Publication, pp. 355-360. ACM, 2013.
- [3] **Thomaz, Edison**. "Developing distributed contextualized communication services." S.M. Media Arts & Sciences Thesis, Massachusetts Institute of Technology, 2002.

Referred Workshops and Posters

- [1] **Thomaz, Edison.** "Eating Detection with Wrist-Mounted Sensors: Challenges, Lessons Learned and Next Steps". In the "Automatic Dietary Monitoring 2018: The grand challenge from lab to real-life systems" Workshop at the International Conference on Wearable and Implantable Body Sensor Networks (BSN 2018).
- [2] **Thomaz, Edison,** Abdelkareem Bedri, Temiloluwa Prioleau, Irfan Essa, and Gregory D. Abowd. "Exploring Symmetric and Asymmetric Bimanual Eating Detection with Inertial Sensors on the Wrist." In Proceedings of the 1st Workshop on Digital Biomarkers, pp. 21-26. ACM, 2017.
- [3] **Thomaz, Edison.** "A Human-centered conceptual model for personal health informatics data." In CHI 2013 workshop "Personal Informatics in the Wild: Hacking Habits for Health & Happiness", Paris, France. Retrieved August, vol. 25, p. 2015. 2013.
- [4] Froehlich, Jon E., Matthew Kay, Jakob Eg Larsen, and **Edison Thomaz.** "Disasters in personal informatics: the unpublished stories of failure and lessons learned." In Proceedings of the 2014 ACM International Joint Conference on Pervasive and Ubiquitous Computing: Adjunct Publication, pp. 673-678. ACM, 2014.
- [5] Zhang, Cheng, Aman Parnami, Caleb Southern, **Edison Thomaz,** Gabriel Reyes, Rosa Arriaga, and Gregory D. Abowd. "BackTap: robust four-point tapping on the back of an off-the-shelf smartphone." In Proceedings of the Adjunct Publication of the 26th annual ACM symposium on User interface software and technology (UIST), pp. 111-112. ACM, 2013.
- [6] **Thomaz, Edison,** Thomas Plötz, Irfan Essa, and Gregory D. Abowd. "Hydrostream: A Platform for Collecting, Annotating and Analyzing Water Pressure for Health Applications" In CHI 2012 workshop "Personal Informatics in Practice", Austin, TX. 2012.
- [7] **Thomaz, Edison,** Thomas Plötz, Irfan Essa, and Gregory D. Abowd. "Interactive Techniques for Labeling Activities Of Daily Living to Assist Machine Learning." In Proceedings of Workshop on Interactive Systems in Healthcare (WISH). 2011.

Scholarly Presentations

- [1] Workshop on Ambulatory Assessments, The University of Texas at Austin, 2018, Austin, TX
- [2] Fostering Resilience Symposium, The University of Texas at Austin, 2018, Austin, TX
- [3] UCSD COREethics Webinar, University of California San Diego, 2018, La Jolla, CA
- [4] NSF Smart and Connected Health Workshop, Keynote, 2018, Austin, TX
- [5] ECE Seminar Talk, The University of Texas at Austin, 2018, Austin, TX
- [6] Automatic Dietary Monitoring Workshop, BSN, 2018, Las Vegas, NV
- [7] NSF Smart and Connected Health Workshop, Keynote, 2017, Tyler, TX
- [8] UT Austin Department of Psychology Colloquium, 2016, Austin, TX
- [9] UT Austin School of Information Colloquium, 2016, Austin, TX
- [10] NSF Workshop on College Student Health, 2015, Chicago, IL

- [11] Intel ISTC-PC Annual Meeting, 2015, Portland, OR
- [12] Seminar Talk, University of California San Diego, 2015, La Jolla, CA
- [13] Seminar Talk, The University of Texas at Austin, 2015, Austin, TX
- [14] Seminar Talk, Georgia Institute of Technology, 2015, Atlanta, GA
- [15] People-Aware Computing Group, Cornell University, 2014, Ithaca, NY
- [16] Atlanta Data Science Meetup, 2013, Atlanta, GA
- [17] Emory University, Math & Computer Science Dept., 2013, Atlanta, GA
- [18] Atlanta Workshop on Computational Social Science, 2013, Atlanta, GA
- [19] Humana C3, 2011, Louisville, KY
- [20] Quantified-Self Conference, 2011, Mountain View, CA
- [21] Georgia Gerontology Annual Conference, 2011, Athens, GA
- [22] Georgia Tech GVU/CDC Workshop, 2011, Atlanta, GA
- [23] Georgia Tech Aware Home Seminar, 2011, Atlanta, GA
- [24] Modeling and Retrieval of Context Workshop, AAAI 2006, Boston, MA

Student Supervision

2017-Present	Rebecca Adaimi, Ph.D. ECE	UT Austin
2016-Present	Keum San Chun, Ph.D. ECE	UT Austin
2016-Present	Sarnab Bhattacharya, Ph.D. ECE	UT Austin
2018	Dawei Liang, M.S. ECE	UT Austin
2017	Christopher Gill, B.S. ECE	UT Austin
2017	Ka tai Ho, B.S. ECE	UT Austin
2017	Andrew Yang, B.S. ECE	UT Austin
2015	Abdelkareem Bedri, M.S. CS	Georgia Tech
2014	David Muñoz, M.S. HCI	Georgia Tech
2014	Rushil Khurana, M.S. CS	Georgia Tech
2014	Arvind Krishnaa, M.S. CS	Georgia Tech
2013	Sahil Goyal, M.S. CS	Georgia Tech
2013	Minsik Bang, B.S. CS	Georgia Tech
2012	Megha Sandesh, M.S. CS	Georgia Tech
2012	Aman Parnami, M.S. HCI	Georgia Tech
2002	Dan Ports, M.Eng. EECS	MIT

Post-Doctoral Supervision

2016	Mariella Dimiccoli	University of Barcelona
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Dissertation Committee

2017-Present	Islam Akef Ebeid, Ph.D. iSchool	UT Austin
2016-Present	Mustaf Rahman, Ph.D. iSchool	UT Austin
2016-2017	Talha Khan, Ph.D. ECE	UT Austin

Teaching

2017	INF385T, Personal Informatics	UT Austin
2017	EE422C, Software Design and Implem.	UT Austin
2016	INF385T, Personal Informatics	UT Austin
2016	EE382V, Activity Sensing and Recognition	UT Austin
2013	CS8001/CS8002, HCC Seminar	Georgia Tech

Departmental Committee & Service

2017	Equal Opportunity in Engineering Committee	UT Austin
2017	ECE Seminar Committee	UT Austin
2017	iSchool Doctoral Committee	UT Austin
2017	iSchool Diversity and Inclusion Committee	UT Austin
2017	Certificate in Humanitarian Engineering Committee	UT Austin
2016	ECE Senior Faculty Search Committee	UT Austin
2016	Equal Opportunity in Engineering Committee	UT Austin

Professional Activities

- Associate Editor, Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (PACM IMWUT), 2017-Present.
- Program Committee Member, ACM International Symposium on Wearable Computing (ISWC), 2017-Present.
- Program Committee Member, IEEE International Conference on Pervasive Computing and Communications (PerCom), 2017.
- Program Committee Member, ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp), 2016.

- Organizer, "Automatic Dietary Monitoring: The Grand Challenge from Lab to Real-Life Systems" Workshop, International Conference on Wearable and Implantable Body Sensor Networks (BSN), 2018
- Reviewer, ACM International Joint Conference on Pervasive and Ubiquitous Computing (Ubi-comp), 2012-Present.
- Reviewer, IEEE International Conference on Pervasive Computing and Communications (PerCom), 2016-Present.
- Reviewer, EAI International Conference on Pervasive Computing Technologies for Healthcare (Pervasive Health) 2016.
- Reviewer, ACM International Symposium on Wearable Computing (ISWC), 2015-Present.
- Reviewer, ACM International Conference on Intelligent User Interfaces (IUI), 2015.
- Reviewer, IEEE Pervasive Computing, 2015.
- Reviewer, IEEE Journal of Biomedical and Health Informatics, 2014.
- Reviewer, ACM Designing Interactive Systems (DIS), 2014.
- Reviewer, ACM Human Factors in Computing Systems (CHI), 2013-Present.

References

Available on request.