

STEPHEN P. TARZIA

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Department of Electrical Engineering and Computer Science
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EDUCATION

Ph.D. in Computer Engineering, Northwestern University	2011
Dissertation: "Acoustic sensing of location and user presence on mobile computers."	
Advisor: Peter A. Dinda	
M.S. in Computer Engineering, Northwestern University	2008
Advisor: Robert P. Dick	
B.S. in Computer Engineering, magna cum laude, Columbia University	2005

EMPLOYMENT

Northwestern University	
Assistant Chair and Lecturer, Electrical Engineering and Computer Science Dept.	2017-present
Senior Computational Research Consultant, Kellogg School of Business	2017
Knight Lab Professional Fellow, Medill School of Journalism	2016
FastModel Sports, Chicago, Illinois	
V.P. of Engineering	2014-2015
Signal.co, Chicago, Illinois	
Software Engineer	2014
Founder, Pumpkin Box LLC, Evanston, Illinois	2014
Vaporstream Inc., Chicago, Illinois	
V.P. and General Manager of Consumer Products	2013
V.P. of Engineering	2012-2013
Software Engineer	2011-2012

HONORS & AWARDS

Knight Lab Professional Fellowship (6 month stipend), Northwestern Univ.	2016
Dr. John N. Nicholson Fellowship (tuition and stipend), Northwestern Univ.	2007 - 2011
Walter P. Murphy Fellowship (tuition and stipend), Northwestern Univ.	2006 - 2007
Magna Cum Laude (top 15% of graduating class), Columbia Univ.	2005

ADVISING

Prem Seetharaman: undergraduate research project (leading to a conference publication) Fall-Summer 2011
Prem is now a Ph.D. student in Prof. Pardo's lab at Northwestern EECS.

TEACHING

Northwestern University

(Lectures are posted on YouTube. Search for [Tarzia EECS-340](#) and [Tarzia EECS-317](#))

EECS-340 Computer Networking Spring 2018
5.30/6.0 instructor rating. 5.05/6.0 overall course rating

EECS-343 Operating Systems Winter 2018
5.32/6.0 instructor rating. 5.18/6.0 overall course rating

Re-developed and taught EECS-317 Data Management and Information Processing Fall 2017
5.42/6.0 instructor rating. 5.27/6.0 overall course rating.

Teaching assistant for EECS-311 Data Structures Spring 2007

Teaching assistant for EECS-101 An Introduction to Computer Science for Everyone Spring 2010

Amundsen High School and South Shore High School, Chicago, Illinois

Guest earth sciences teacher Mar. 31 and Apr. 30, 2009

Science and Technology Entry Program (STEP), New York, New York

Robotics teacher for K-12 enrichment programs Spring, Summer 2004

PUBLICATIONS

355 citations listed on [Google Scholar](#)

P. Seetharaman, S. P. Tarzia. [The Hand Clap as an Impulse Source for Measuring Room Acoustics](#). In Proc. Audio Engineering Society 132nd Convention. April 2012.

S. P. Tarzia, P. A. Dinda, R. P. Dick, G. Memik. [Indoor Localization Without Infrastructure Using the Acoustic Background Spectrum](#). In Proc. 9th Intl. Conf. on Mobile Systems, Applications, and Services (MobiSys'11). June 2011. pages 155-168.

S. P. Tarzia, P. A. Dinda, R. P. Dick, G. Memik. [Display Power Management Policies in Practice](#). In Proc. 7th Intl. Conf. on Autonomic Computing and Communications (ICAC'10). June 2010. pages 51-60.

S. P. Tarzia, R. P. Dick, P. A. Dinda, G. Memik. [Sonar-based Measurement of User Presence and Attention](#). In Proc. 11th Intl. Conf. on Ubiquitous Computing (UbiComp'09). September 2009. pages 89-92.

NOTABLE PRESENTATIONS

[Indoor Localization Without Infrastructure Using the Acoustic Background Spectrum](#). 9th Intl. Conf. on Mobile Systems, Applications, and Services (MobiSys'11). Bethesda, Maryland. June 30, 2011

[Display Power Management Policies in Practice](#). 7th Intl. Conf. on Autonomic Computing and Communications (ICAC'10). Washington, D.C. June 8, 2010

[Sonar-based Measurement of User Presence and Attention](#). Proc. 11th Intl. Conf. on Ubiquitous Computing (UbiComp'09). Orlando, Florida. October 2, 2009

DEMOS AND POSTERS

S. P. Tarzia, P. A. Dinda, R. P. Dick, G. Memik. [Demo: Indoor Localization Without Infrastructure Using the Acoustic Background Spectrum](#). In Proc. 9th Intl. Conf. on Mobile Systems, Applications, and Services (MobiSys'11). June 2011. pages 385-386.

S. P. Tarzia, R. P. Dick, P. A. Dinda, G. Memik. [A Demonstration of Sonar-based Presence Detection](#). In Suppl. Proc. 11th Intl. Conf. on Ubiquitous Computing (UbiComp'09). September 2009. pages 158-159.

S. P. Tarzia, R. P. Dick, P. A. Dinda, G. Memik. [Sonar-Based Measurement of User Attention](#). Poster presentation at USENIX Annual Technical Conference (USENIX'09). June 2009.

TECHNICAL REPORTS

S. P. Tarzia. [Acoustic sensing of location and user presence on mobile computers](#). Doctoral Dissertation and Technical Report NWU-EECS-11-09, Department of Electrical Engineering and Computer Science, Northwestern University. August 2011.

S. P. Tarzia, R. P. Dick, P. A. Dinda, G. Memik. [Prospects for Sonar-based Measurement of User Attentiveness](#). Technical Report NWU-EECS-09-06, Department of Electrical Engineering and Computer Science, Northwestern University. April 2009.

S. P. Tarzia, H. Zhou, R. P. Dick. [Fast Voltage Assignment by Convex-cost Flow](#). Technical Report NWU-EECS-09-07, Department of Electrical Engineering and Computer Science, Northwestern University. April 2009.

PROFESSIONAL SERVICE

Referee, Journal of Signal Processing Systems	2018
Referee, IEEE Pervasive Computing	2017
Referee, IEEE Transactions on Mobile Computing	2017
Referee, EURASIP Journal on Advances in Signal Processing	2013
Referee, IEEE Transactions on Parallel and Distributed Systems (TPDS)	2010-2011
Referee, IEEE Computer Magazine	2010
Volunteer, Emerging Computational Methods for the Life Sciences Workshop	2010
Session Summarizer, USENIX Annual Technical Conf. (published in login; magazine, Oct. 2009)	2009
Referee, Asia South Pacific Design Automation Conference (ASP-DAC)	2008
Referee, Embedded Systems Week Conference (ESWeek)	2007

ADDITIONAL ACTIVITIES

Publisher, National Gun Violence Memorial a crowd-sourced website showing profiles of more than 42,000 gun violence victims since 2014, and including more than 34,000 photos (as of 9/2017).	2015-present
Coach, International Collegiate Programming Competition. Northwestern Univ.	2017-2018
Far From Equilibrium: A Research Playground. Chicago, Illinois an interdisciplinary modern dance performance on the theme of turbulence in fluid dynamics. I built several physics demonstrations for an exhibit explored by the audience after the show.	2016
ClapIR iPhone app demonstrates our room acoustics measurement technique and has been translated into German and Spanish and downloaded more than 12,000 times (as of 9/2017).	2011
Batphone iPhone app demonstrates the indoor localization method described in my PhD dissertation.	2010

Sonar Power Manager desktop application

2009

demonstrates our sonar technique for turning off a laptop's display when a user is absent.

Downloaded more than 10,000 times (as of 1/2010).