

Yonatan Vaizman

Emails: yvaizman@eng.ucsd.edu yonatanv@gmail.com

Website: <http://acsweb.ucsd.edu/~yvaizman>

Tel: 619-992-5197

Education

University of California, San Diego

Ph.D. in Electrical and Computer Engineering

Expected: March 2018

M.S. in Electrical and Computer Engineering

June 2014

- GPA: 3.8
- Relevant courses: Information theory, Image processing, Random processes, Digital signal processing I-II, Filter-banks & wavelets, Convex optimization, Big data analytics.

Hebrew University, Jerusalem, Israel

Graduate studies, Interdisciplinary Center for Neural Computation.

- Relevant courses: Statistical signal processing, Neural networks I-II, Digital signal processing, Information processing and learning, Dynamics and control.

B.S. in Computer Science and Computational Biology & Mathematics section

July 2007

- Final grade: 92 (graduated with excellence)

Research

University of California, San Diego

Behavioral Context Recognition In-the-Wild:

2014-present

- Semi-supervised and active learning for context-recognition models.
- Machine learning models and methods for multi-label classification, with missing sensors and incomplete, unbalanced labeling.
- Fusing multi-modal sensors for context recognition.
Mentored an MS student for generative models.
- Collection of the *ExtraSensory Dataset* – large-scale in-the-wild data with phone/watch sensor-measurements and rich context-labels.
<http://extrasensory.ucsd.edu>.
- Development of a mobile-app for data-collection with self-reported behavior-labels in-the-wild. iPhone and Android.
<http://extrasensory.ucsd.edu/ExtraSensoryApp.html>.
Mentored two undergraduate students for help in implementation.

Music Information Retrieval:

2012-2014

- Learning audio-content representations for music recommendation.
- Generative time-series models for music auto-tagging and retrieval.

Amazon

Speech Recognition Acoustic Modeling:

Summer 2016

- Robust speech recognition via anchor-word representations.

Hebrew University, Jerusalem, Israel

Music Information Retrieval:

2011

- Dynamic generative models to capture emotional content in music.

Speech Prosody Analysis:

2008-2010

- Using language identification models for mental pathology detection.
- Prosodic and acoustic characteristics of speech in Schizophrenia and Depression.

Work Experience

University of California, San Diego

Teaching assistant (intro to computer engineering, ubiquitous computing) 2014, 2015, 2017
Including guest lecturer: https://www.youtube.com/watch?v=2cuhvEQZ_sI

Amazon

Machine learning scientist (summer internship) Summer 2016

HighSign

Scientific consultant for a startup company 2015

Hebrew University, Jerusalem, Israel

Teaching assistant (intro to CS, programming in Java, C, C++) 2009-2011

Intel, Jerusalem, Israel

Software and firmware validation engineer 2006-2009

Awards and Recognitions

Rita Atkinson fellowship, UCSD 2015
Qualcomm Innovation Fellowship finalist 2015
Powel Fellowship, Jacobs school of Engineering, UCSD 2012-2015
Interdisciplinary Center for Neural Computation best presentation award 2011
Interdisciplinary Center for Neural Computation scholarship, HUJI 2007-2010
Stein scholarship for B.Sc. in Computational Biology, HUJI 2004-2006
Excellence price, Hebrew University 2004

Peer-Reviewed Publications

Vaizman, Y., Ellis, K., Lanckriet, G., & Weibel, N. Data Collection In-the-Wild with the ExtraSensory App: Rich User Interface to Self-Report Behavior. *CHI 2018*.

Vaizman, Y., Weibel, N., & Lanckriet, G. Context Recognition In-the-Wild: Unified Model for Multi-Modal Sensors and Multi-Label Classification. *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*, vol. 1(4). December 2017.

Vaizman, Y., Ellis, K., & Lanckriet, G. Recognizing Detailed Human Context In-the-Wild from Smartphones and Smartwatches. *IEEE Pervasive Computing*, vol. 16(4). October 2017.

King, B., Chen, I.F., **Vaizman, Y.**, Liu, Y., Mass, R., Parthasarathi, SHK., & Hoffmeister, B. Robust Speech Recognition Via Anchor Word Representations. *Interspeech 2017*. August 2017.

Vaizman, Y., McFee, B., & Lanckriet, G. Codebook-based audio feature representation for music information retrieval. *Audio, Speech, and Language Processing, IEEE/ACM Transactions on*, 22(10). October, 2014.

Coviello E., **Vaizman Y.**, Chan A. B. and Lanckriet G. Multivariate Autoregressive Mixture Models for Music Autotagging. *13th International Society for Music Information Retrieval Conference (ISMIR 2012), Porto, Portugal*, October 2012.

Vaizman Y., Granot R. Y. and Lanckriet G. Modeling dynamic patterns for emotional content in music. *12th International Society for Music Information Retrieval Conference (ISMIR 2011), Miami, United States*, October 2011.

Klipper R., **Vaizman Y.**, Weinshall D. and Portuguese S. Evidence for depression and schizophrenia in speech prosody. *Second ISCA Tutorial and Research Workshop on Experimental Linguistics - ExLing, Athens Greece*, August 2010.

Skills

Python, Java, C/C++, Matlab, mobile development for Android (Java) and iOS (Objective C), JavaScript, spark, Theano. Unix, Windows, Mac.