

# tomgurion

Music / Tech / Interaction

## contact

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## programming

**python:** django, and  
parts of the scipy stack

**elixir:** phoenix

**music & audio:** Max/MSP,  
PureData (and libpd),  
WebAudio API

**web:** JavaScript, jQuery,  
D3, HTML, CSS, Bootstrap

**tools:** git, docker

## education

- 2016–today **Doctor** of Media and Arts Technology Queen Mary University of London
- 2011–2015 **Master** of Music Technology Bar-Ilan University  
*An Audio-Only Augmented Reality System for Social Interaction*  
This thesis explores the potential for using modern technologies to create spatial interactive music consumption experiences for non-professional musicians, where the user's social interaction is the main influence over actually heard music.  
Developing Android applications and Bluetooth based indoor positioning system as part of the research.  
Courses GPA: 94. Thesis grade: 100.
- 2010–2011 **Diploma studies** in the Music Technology program Bar-Ilan University  
GPA: 97.
- 2006–2011 **Bachelor** of Mathematics and Music Haifa University  
Undergraduate of the department of mathematics excellence program. GPA: 90.

## experience

- 2014–2016 **Python management server developer** XtremIO  
Working on the management server of an enterprise storage array. Developing automated maintenance procedures such as system upgrades, hardware replacements, restores, migrations, etc.. Implementing high-level and interactive communication protocols between clients and server.
- 2014 **Python and Django tutor** Freelance and with Udi Oron  
Trainings for new programmers, in hi-tech companies and for independent developers. Responsible for developing training materials as well as assisting and teaching in class.
- 2014 **Full-stack web developer** Shachar web  
Developing ERP web application with python and django on the server side. html, javascript and jquery on the client side.
- 2012–2014 **Music cognition research assistant** Freelance  
Generating stimuli for, and executing music cognition experiments. Taking part in the experiment results analysis.  
Working with Prof. Zohar Eitan from Tel-Aviv University and Dr. Roni Granot from the Hebrew University.
  - Generated audio stimuli using Java according to requested mathematical formulas (e.g. Shepard tones).
  - Developed GUI application to run music cognition experiments with Python.
  - Analysis of recorded music using Vamp plug-ins and python packages for audio features extraction.

- 2009–2014 **Math tutor** Freelance and at HighQ  
Teaching mathematics from junior high to high school including preparation for matriculation exams. Teaching BSc students linear algebra A and B, calculus A and B, discrete mathematics, probability, statistics and more. Teaching classes at HighQ toward 4 units matriculation exams.
- 2010–2014 **Marketing director** Galilee Bedouin Camp Lodge  
Building and maintaining Wordpress (obsolete) and statically generated business sites. Promoting the business through Israeli and international tourism portals and managing customer relations.
- 2012–2013 **Lecture series organizer** Bar-Ilan University  
Organizing lectures of invited speakers on the subjects of music technology, electronic music and post-modern and interactive art in the Music and Technology Program of Bar-Ilan University Music department.
- 2006–2008 **Studio and computer lab assistant** Haifa University  
Taking part at building the computer lab of the music department and being responsible for functionality of the lab and the studio. Working as a recording and mixing engineer in different projects by the music and the art departments.

## publications

- 2015 **An Audio-Only Augmented Reality System for Social Interaction**  
Gurion, T., Thesis. Bar-Ilan University Music Department. Ramat Gan, Israel. 2015.
- 2013 **Audio-Only Augmented Reality System for Social Interaction**  
Gurion, T. and Jacoby, N., HCI International 2013 – Posters' Extended Abstracts. Communications in Computer and Information Science Vol. 373. Springer Berlin Heidelberg, pp. 322–326.

## conferences

- 2016 **The Krihelinator** PyWebIL 55, Tel-Aviv  
Oral presentation the "Krihelinator" project.
- 2013 **Audio-Only Augmented Reality System for Social Interaction**  
IEEE International Symposium on Technology and Society, Toronto  
Oral presentation of my masters thesis.
- 2013 **Audio-Only Augmented Reality System for Social Interaction** HCI International, Las Vegas  
Poster of my masters thesis.
- 2013 **MusiGali -- EEG controlled music project** Brain Tech Israel, Tel-Aviv  
Live demo.

## awards

- 2009 **GU8 Consortium Mathematics Contest** The Global U8 Consortium  
Achieved a silver prize.