Aziz Ege Gönül

Sabancı University, Tuzla, 34956, Istanbul, Turkey, (+90)535-030-0135
website: www.egegonul.com • e-mail: egegonul@sabanciuniv.edu

EDUCATION

Georgia Institute of Technology, Atlanta, USA
Center for Music Technology (GTCMT),
M.Sc in Music Technology, Graduation (Expected): May 2020

Sabancı University, Istanbul, Turkey
Faculty of Engineering and Natural Sciences,
B.Sc in Electronics Engineering, Graduation: January 2017

SELECTED PROJECTS

Designed a 4-track sampler/sequencer groovebox
Sabanci University, Istanbul & STEIM, Amsterdam
Spring-2017, Supervisor: Asst. Prof. Selcuk Artut / Nicolo Merendino

- It was developed mainly for outdoor use during my Trans-Siberian Railway train journey throughout Siberia.
- Design steps include: Utilizing CAD tools for hardware design, 3D case print, PCB design and manufacture, audio engine and programming, front panel design. More info at: http://www.egegonul.com/portfolio/tsr-instrument-design
- Key features: Pushable encoders, 32 different synthesis parameters, LCD screen, sampling, step-wise parameter modulation, +25 hours battery & piezo mics

Developed a motion-controlled gestural sound design tool
Sabanci University, Istanbul
Autumn-*2016*, *Supervisor: Asst. Prof. Selcuk Artut*

- Final project for the VA-444 Interaction Design course (Team of two)
- Key features: Force sensitive resistors for finger-based gestures, accelerometer, sampling capability. More info at: http://www.egegonul.com/portfolio/pantomimic

Implemented C++ Data Structures classes for practical computing problems
Sabanci University, Istanbul
Autumn-*2016*, *Supervisor: Asst. Prof. Cemal Yilmaz*

- Total of five homework/projects for the CS-300 Data-Structures course
- Topics include: Search engine optimization, priority queues, LZW binary tree compression, hash tables, heaps, computational complexity

Emulated Yamaha-DX7 using Supercollider
STEIM, Amsterdam
Summer-2016, Supervisor: Kristina Andersen

- It can load original DX7 presets with high accuracy
- More info at: https://github.com/everythingwillbetakenaway/DX7-Supercollider

Designed core DSP functions using Matlab
Sabanci University, Istanbul
Spring-2016, Supervisor: Prof. Ozgur Ercetin

- Total of five extensive laboratory projects for the course EE-312 Discrete-Time Signals and Systems
- Topics include: Interpolation and decimation, IIR & FIR filters, FFT, Z-Transforms

Created a generative music app for IOS and Android
Sabanci University, Istanbul
Spring-2015, Supervisor: Murat German, Selim Balcisoy, Elif Ayiter

- Term project for the course CS-450 Arts and Computing (Team of three)
- Responsible for coding the entire audio engine using Pure Data
- More info at: http://baranusta.wix.com/chorusapp

Written MATLAB codes for Sound Manipulations
Sabanci University, Istanbul
Autumn-*2015, Supervisor: Prof. Hakan Erdogan*

- Weekly basis MATLAB projects/homework for the course EE-311 Signal Processing
- Topics include: Fourier Series/Analysis, Convolution, FFT, DTFS, DFT, Sampling, Filtering, AM, FM

Circuit Designs for the EL302-Digital Integrated Circuits
Sabanci University, Istanbul
Spring-2015, *Supervisor: Assoc. Prof Ayhan Bozkurt*

- Designed full custom Design of a Standard Cell Library using AMS 0.35μm CMOS Technology in Cadence Environment
- Library includes: Schematic and layout designs of Positive Edge Triggered D Flip-Flop with Asynchronous Set and Reset and various Logic Gates

Designed schematic and layout of a Two-Stage Op-Amp
Sabanci University, Istanbul
Autumn-*2014, Supervisor: Prof. Yasar Gurbuz*

- Term project for the course EL-303 Analog Integrated Circuit
- Specification: Gain:80dB, Bandwidth:10MHz, SNR: 5V/μs, Load: 10pF

RESEARCH INTEREST

Sound synthesis: Signal processing, behavioral circuit modeling, creative coding, tactile interaction, audio effects processing, Ambisonics

Electronic instrument design: Analog/digital circuitry, hardware/software hacking, DIY-controllers & sensors, printed circuit board design, 3D design, CAD drawing

Algorithmic composition: Aleatory/indeterminacy, probability, Markov Chains, generative systems, live coding, machine learning, sonification, cellular automata

WORK EXPERIENCE

STEIM Internship, June-September 2016, Full-time
www.steim.org
I implemented Yamaha DX-7 emulation using the Supercollider programming language and engaged in various activities on different projects such as repairing instruments, sound design for various projects and variety of lab tasks.

IT Manager - Develioglu-Dag Firm, 2012-2015, Part-time
www.develiogludag.com
https://www.linkedin.com/company/develioglu-&-dag-law-firm
I had managed document management systems and customer relationship management applications and acted as the first line of support for end-user issues.

CONFERENCES & WORKSHOPS

CTM Festival MusicMakers Hacklab
HAU2, Berlin
Supervisor*: Peter Kirn, Ioann Maria , January-February 2018*
http://www.ctm-festival.de/festival-2018/transfer/musicmakers-hacklab/

Wonky Drum Sequencer Workshop, (Weekly basis)
STEIM, Amsterdam
Supervisor*: Frank Baldé, Nicolo Merendino, April-May 2017*
http://steim.org/event/wonky-drum-sequencer-workshop/

Music Technology Intensive Workshop, (Full-Time)
New York University, New York
Supervisor*: Matthew Kulewicz, 10-22-July 2016*
https://steinhardt.nyu.edu/music/summer/musictechintensive

Supercollider Workshop, (Full-time)
Stanford University, California
Supervisor: Bruno Ruviaro and Fernando Lopez-Lezcano, June 2015
https://ccrma.stanford.edu/workshops/supercollider

10th International Symposium on Computer Music Modeling and Retrieval
CMMR 2013, Marseille, France, October 2013 - http://www.cmmr2013.cnrs-mrs.fr/

SKILLS

Programming Languages
Supercollider, Max/MSP/Jitter, Pure Data, C/C++, MATLAB, Java, R, Python

Musical Instruments
Modular synthesizers, MPE keyboards, samplers, hardware sequencers, drum machines

Circuit Design Environments
Cadence, Verilog HDL, Xilinx, OrCad Pspice, Eagle PCB design, Fritzing

Software for Audio
Ableton Live, Cubase, Logic Pro, Audacity, Bitwig, Sound Forge, Arduino

Graphic Design
Adobe Photoshop, Solidworks, Animate CC, Photomatix Pro, GIMP., Pixelmator

Hardware Design
PCB layout design & printing, SMD soldering, 3D printing, front panel fabrication

LANGUAGES

- **English** (Advanced)
- **German** (Basic)
- **Turkish** (Native)

PERSONAL INTERESTS

- Seven years of private piano lessons in classical, including two years of solfege
- Building DIY synthesizers (Mostly Eurorack modular format)
- Running, cooking, dancing, meditation & sci-fi books