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Lu	ucation	

2016–2017 MA Music, University of Huddersfield, UK.

Thesis title: "Programming for Music: Explorations in Abstraction"

Supervisor: Alexander J. Harker

2010–2016 BSc Computer Science and Engineering, Sabanci University, TR.

Experience

Fall'20- Senior Software Developer, Anatha, Sheridan, WY.

present Lead developer in blockchain based mobile application.

Fall'21- Audio Software Architect, Arpeggi.Labs, San Francisco, CA.

Spring'22 Audio software architecture design for Web3 based audio workstation

Spring'18- **Software Developer**, *SKR Audio Labs*, San Jose, CA.

present Developing the audio engine architecture in C++ and part of the team that develops the client application for a cloud-based digital audio workstation (DAW)software.

Spring'20- **Software Developer**, *ununu*, Berlin, Germany.

Summer'20 ununu helps musicians to host their music projects and manage collaborations with multiple producers. My role was to develop the front end architecture and application logic as a part of the Mozilla MVP Lab

Fall'18- Full Stack Developer, Cadenzabox, London, UK.

Fall'19 Responsible for the API development of *Cadenzabox*, a streaming platform for music publishers. Main contributions include Elasticsearch implementation for future-proof multitenant scale

Fall'17- CEO and Software Developer, ince.io, London, UK.

present ince.io is a software company founded by myself, offering solutions in the intersection of software and creativity – e.g. interactive audio engines for games and applications, sound design, electronic music instruments, audiovisual systems for performance, and installations. Projects:

- Audileum, a collaboration with Newtoy ltd:
 - Funded By Arts Council UK;
 - Research and Development Residency in Barbican Centre, Pit Theatre;
 - Still on going development
- July'15- **Software Developer**, *Duello Games*, Istanbul, TR.
 - Sep'16 Worked on the Unity-based games Ozmo and Islash Heroes as a Junior Software Developer.
- June'14- Sound Designer, Duello Games, Istanbul, TR.
 - Sep'15 Designed and produced audio content for the mobile game Islash Heroes.
- July'12- Web Development Intern, Rabarba Digital Advertisement Agency, Istanbul, TR.
 - Jan'13 Did query analysis and development for Lipton's chat-bot (see video).

Selected Projects

2017- **Audileum**.

Audileum is an Unity based interface, which, through the mapping of trigger areas in the 3D space, creates live interactive platforms for performance, sound design, composition and storytelling. Audileum productions can be re-enacted and experienced anytime and anywhere through Virtual Reality and Web platforms.

2017 - Siren: an Ecosystem for Musical Patterns.

A tracker interface and an event sequencer for live coding. Siren is a JavaScript-based web application. The back-end, which interfaces with GHC, is built using Node.js and the front end is implemented using Reactjs. For the academic community I have published a conference paper at the 2017 International Computer Music Conference (ICMC) titled Siren: Hierarchical Composition Interface. In addition to the conference proceedings, Siren has been featured in a recently crowd-sourced book on electronic music instruments, Push Turn Move, beside SuperCollider, PureData and TidalCycles.

Fall'15- Polyphonic Sampler in Max/MSP, ENS-491/2,

Spring'16 Developed a polyphonic sampling system in Max/MSP as my bachelor thesis. Project's scope included filter and DSP design in *gen* as well as multi-dimensional mappings within each voice.

Fall 2015 Computer controlled acoustic drum machine, VA-440,

Patchwork is a computer controlled acoustic drum machine that I built in a collaboration with a visual artist for the final project of Phsyical Computing. I was responsible for the technical development of the sequencer which is built with Max/MSP and Mira library of Cycling'74 is used to remote controls the Arduino and five selenoid motors which interact with two acoustic hi-hat and a snare drum. The project was also a part of an exhibition in Istanbul Maker Faire (see video).

Fall 2015 Generative music application for IOS and Android, CS-450,

Term project for the Arts and Computing (Team of three) *Chorus* is a native IOS and *Android* application which is designed to serve as a musical sampler. It can record at most three different sound channels and process them in the embedded sound engine which is developed in Pure Data(libpd). It analyses the frequencies and generates the content which is harmonious with the other channels (see video).

Spring 2015 **3D Generative Game**, *CS-405*,

Final project for the Computer Graphics course, developed with Three.js graphics library. The main features are procedural generation, collusion detection and reactive shaders (see Live Demo).

Spring 2015 **Sentiment Analysis on Tweets**, *CS-412*,

Studied supervised learning models to analyze a tweet's suicidal inclines using *Matlab* and Weka.

Fall 2014 Theoretical DSP analyses and derivations , *EE-312*,

Five extensive Matlab-based laboratory projects covering interpolation and decimation, IIR/FIR filters, FFT, Z-Transforms topics within the scope of Discrete-Time Signals and Systems course.

Programming Languages and Libraries

Environments JavaScript, TypeScript, C++, Swift, Unity(C#), Python, Java, Objective-C, MAT-

LAB, Haskell

Back-End Node.js, GraphQL, Express.js, Socket.io, FeathersJS, Elasticsearch

Front-End React Native, React.js, Preact, Redux, Mobx, SwiftUI

Database Firebase, MongoDB, PostgreSQL

Audio JUCE, AudioKit, SuperCollider, PureData, Max/MSP

Graphics OpenGL, Processing, WebGL, Three.js, P5.js, D3.js

Cloud Google Cloud Platform, AWS, Heroku

Conferences

Program Chair, Workshop on Functional Art, Music, Modeling and Design (FARM18)

Poster Presentation, New Musical Interfaces for Musical Expressions (NIME18)

Paper Presentation, International Computer Music Conference (ICMC17)

Music

PFM Vol.1 (on Bandcamp)
Pattern Studies (on Bandcamp)

Algorave: AlgoFive podcast (on Youtube)

Languages

Turkish Native

English Advanced

French Intermediate