

Ágoston Nagy / CV / Selected Works

Budapest / Hungary / 1981

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Agoston is making interaction design, experimental media, generative arts using free & open source tools. He is designing dynamic systems & interfaces for networked installations, developing creative mobile applications. His field of interests are cognitive computing & embodied experience, data visualization & sonification, the role of computational culture in different social contexts. He regularly gives workshops and developing courses on interaction design, creative coding & machine learning using several open source languages. He is a guest lecturer at Moholy-Nagy University of Design & Arts (MOME, Hungary) and a HCI researcher at Prezi.com. His works have been exhibited worldwide including China, India, Canada, Germany, Italy, Norway, Poland, United States, Belgium, Hungary among others. He is the co-founder of the experimental new media design group Binaura.

Current positions

Lecturer & Course Leader at Moholy-Nagy University of Art & Design
HCI Researcher of experimental interfaces at Prezi.com

Programming Languages

Javascript (expert)
Java (expert)
C++ (expert)
Pure Data (expert)
Squirrel (intermediate)
Python (basic)
SuperCollider (basic)

Natural Languages

English (expert)
Italian (Basic)

Education

Goldsmiths University of London / Machine Learning for Artists & Musicians (online course), 2016

Moholy-Nagy University of Design & Arts / DLA (Doctor in Multimedia Arts), 2015

Goldsmiths University of London / Creative Programming for Digital Media & Mobile Apps (online course), 2013

Moholy-Nagy University of Design & Arts / media design, MA certificate, 2008

Brera Accademia delle Belle Arte (Milano, Italy) / Erasmus semester, 2007

Varosmajor High School / graduated in 2000

Works (art & technology)

2018

Bricolage

Description: Lecture performance, sonification, algorithm visualization

URL: <http://www.binaura.net/bricolage>

Technology: OpenFrameworks, PureData

Event & Location: Spectrum (Berlin, D), Ludwig Museum (Budapest, H)

PolarGraph

Description: Kinetic drawing installation

URL: <http://www.binaura.net/polargraph>

Technology: OpenFrameworks, arduino, stepper motors

Event & Location: Jurányi Gallery, Budapest

2017

Atlás

Description: Anti Game Environment for touch interfaces

URL: <http://www.binaura.net/atlas>

Technology: iOS, P5JS (javascript), Pure Data (libPd)

Event & Location: Published on App Store, appeared on Creative Applications Network

2016

SodaLib

Description: data sonification library

URL: <https://github.com/stc/ofxSodaLib>

Technology: OpenFrameworks

Event & Location: Github Repository

Echo

Description: realtime twitter bot sonification

URL: <http://www.binaura.net/echo>

Technology: OpenFrameworks, custom electronics, Raspberry PI

Event & Location: Controll Exhibition, Kunsthalle, Budapest

Prepared Church Organ

Description: modified church organ for introducing different musical pieces

URL: <http://techlab.mome.hu/>

Technology: OpenFrameworks, custom electronics, Raspberry PI

Event & Location: Lutheran Museum

Drives

Description: sound reactive visuals for Hiroaki Umeda's *Drives* performance

URL: http://trafo.hu/en-US/umeda_2016

Technology: OpenFrameworks

Event & Location: Trafó House of Contemporary Arts

2015

Loom

Description: drawing-based musical instrument

URL: <http://www.binaura.net/loom-app>

Technology: Javascript (P5JS, WebPd), HTML5

Event & Location: published on Chrome Experiments

Drip Canon

Description: physics based generative visuals for live performance

URL: <https://youtu.be/F0fbFp6lAPU>

Technology: OpenFrameworks

Event & Location: Hungarian Palace of Arts (MüPa), Budapest, Hungary

- 2014 *Silence* (शांति)
 Description: Sound Reactive Public Art Installation (Guerilla Projecting)
 URL: <http://www.binaura.net/silence>
 Technology: Processing
 Event & Location: Sandarph Artist Residency, Partapur, India
- 2013 *SphereTones Live*
 Description: Live Improvisation
 URL: <https://soundcloud.com/binaura/spheretones-live-bergen>
 Technology: Pure Data, OpenFrameworks
 Event & Location: Dirty Ear Forum, Kunsthalle, Bergen, Norway
- Flux*
 Description: Algorithmic Sound Installation
 URL: binaura.net/stc/wrx/flux
 Technology: Pure Data, Processing, Quadrophonic Sounds
 Event & Location: Aquarium Gallery, Budapest, Hungary
- Soundbow (Javascript Version)*
 Description: Musical instrument made with open web technologies
 URL: www.binaura.net/stc/wrx/soundbow
 Technology: Javascript, html5
 Event & Location: Google Chrome Experiments
- 1+1=1*
 Description: Sound design, live electronics in collaboration with Artus C.A.S.
 URL: youtu.be/IFdVCPOrbUc
 Technology: Microphones, Pure Data, Found Objects, Quadrophonic Sounds
 Event & Location: Trafo House of Contemporary Arts, Budapest, Hungary
- Painteractive*
 Description: Interactive Installation in collaboration with Lighting Bulbs
 URL: vimeo.com/59979774
 Technology: Openframeworks, Kinect, Pure Data
 Event & Location: A38, Budapest, Hungary
- 2012 *No Distance No Contact*
 Description: Public Space Installation
 URL: www.binaura.net/stc/wrx/ndnc
 Technology: Radio Sensors, Custom Electronics, Arduino, Processing, Pure Data
 Event & Location: City Noises, London (UK), Helsinki (FI), Budapest (H), Biela Noc, Kosice (SK)
- SoundBow*
 Description: Musical instrument for touch interfaces
 URL: www.binaura.net/stc/wrx/soundbow
 Technology: Android, Processing, Pure Data (libPd)
 Event & Location: Published on Google Play, appeared on Creative Applications Network
- Nest*
 Description: Kinect based networked installation
 URL: www.binaura.net/nest
 Technology: Kinect Sensor, Processing, Openframeworks, Javascript
 Event & Location: Manier, Budapest, Hungary
- 2011 *Four Fold*
 Description: a composition of algorithmic music & visual live coding (with Gabor Papp)
 URL: www.binaura.net/alpha-2011
 Technology: Fluxus (Lisp), Pure Data
 Event & Location: Computer Music Journal Sound & Video Anthology Vol 35, © 2011, MIT

Alpha 2.0

Description: Kinect based generative sound installation made with natural materials
URL: www.binaura.net/alpha-2011
Technology: Kinect Sensor, Pure Data, Openframeworks, Sand, Stones, Wood
Event & Location: Audio Art Festival, Krakow, Poland

Reactive Score

Description: RFID sensor based interactive installation for nonlinear listening experience
URL: www.binaura.net/mupa-liszt-series
Technology: RFID sensors, Processing, Modified Book
Event & Location: Liszt Anniversary, Palace of arts (MÜPA), Budapest, Hungary

2010

Ulysses

Description: Sound design & programming for wireless devices, live performance
URL: www.binaura.net/stc
Technology: Wireless sound transmitting, Android, Pure Data
Event & Location: Artus Contemporary Art Studio, Budapest, Hungary

Sisyphos

Description: Sound design for broken piano & electronics, live performance
URL: www.binaura.net/stc
Technology: Microphones, Broken Piano, Pure Data, Found Objects
Event & Location: Artus Contemporary Art Studio, Budapest, Hungary

Elements

Description: Live performance for mobile devices & analog mixer
URL: www.irzu.org/index.html
Technology: Pure Data, Buddha Machine, Feedback delay, Mixing Desk
Event & Location: Earzoom Festival, Ljubljana, Slovenia

Kertek Alatt

Description: Interactive analog sound installation
URL: www.binaura.net/prototypen
Technology: Tibetan Singing Bowls, Water, Analog Effect Circuits
Event & Location: Prototypen Fest, Dortmund, Germany

Shanghai Synth

Description: kinetic interactive installation
URL: www.binaura.net/shanghai-synth
Technology: 500+ motors, Pure Data, Processing, Multiple Sound Channels
Event & Location: Expo 2010, Hungarian Pavilion, Shanghai, China

No Copy Paste

Description: Live coding performance
URL: ncp.kibu.hu
Technology: Fluxus, Pure Data
Event & Location: Make Art (chmod +x), Groningen, Netherlands

SpaceScan

Description: Experimental interactive interface
URL: www.binaura.net/spacescan
Technology: IR based ComputerVision Tracking (using camera), Pure Data, Plexiglas
Event & Location: Mome Playground, Kunsthalle, Budapest, Hungary

2009

No Copy Paste

Description: Augmented reality performance
URL: ncp.kibu.hu
Technology: Fluxus, Pure Data, Artoolkit
Event & Location: Make Art Fest, Poitiers, France

Electrified city

Description: Experimental drawing interface for controlling sounds
URL: timelab.org
Technology: Conductive Graphit, Arduino, Pure Data, Paper
Event & Location: Timelab, Ghent, Belgium

Alpha

Description: Multichannel interactive installation
URL: www.binaura.net/alpha
Technology: IR based Computer Vision Tracking, Openframeworks, Pure Data
Event & Location: 2nd Relative Cross-Hearings Festival, Artus, Budapest, Hungary

OperaLooper

Description: Interactive installation for 4 iPhones
URL: www.kitchenbudapest.hu
Technology: Pure Data, iOS, Animata
Event & Location: Brooklyn Museum, New York, USA

Loop

Description: Sound installation with Cordula Körber
URL: www.binaura.net/stc
Technology: Analog Delay, Plastic Tube
Event & Location: Synoptic Media Workshop, Phoenix Halle, Dortmund, Germany

Kokut

Description: Sound design and music with 'dgzWalk'
URL: www.binaura.net/stc
Technology: Pure Data, Found Sounds
Event & Location: Legnica, Poland

SpaceScan

Description: Experimental interactive interface
URL: www.binaura.net/spacescan
Technology: IR based ComputerVision Tracking (using Wiimote), Pure Data, Plexiglas
Event & Location: That's Design, Fuori Salone, Milano, Italy

Relation Analysis

Description: Sensor-based interactive sound for performance
URL: www.binaura.net/stc
Technology: Arduino, Bending Sensors, Processing, Pure Data
Event & Location: Trafo, Budapest, Hungary

Sequentia Dialectica

Description: Sound work
URL: soundlab.newmediafest.org
Technology: Pure Data, Metal tubes
Event & Location: SoundLAB VI, Cologne, Germany

Testidegen

Description: Interactive sound for dance performance
URL: www.binaura.net/stc
Technology: Kinect, Openframeworks, Pure Data
Event & Location: MU Theatre, Budapest, Hungary

2008

No Copy Paste vs Space Invaders

Description: Live Coding performance
URL: www.ncp.kibu.hu
Technology: Fluxus, Pure Data
Event & Location: Píksel08 Fest, Bergen, Norway

Autocut

Description: Realtime audiovisual mixing software for synching audio & video

URL: www.kitchenbudapest.hu/hu/autocut

Technology: Pure Data

Event & Location: Image Radio', Temporary Art Center, Eindhoven, Netherlands

Sonorama

Description: Interactive physical sound installation, thesis project (@MOME)

URL: www.binaura.net/stc/wrx/sonorama

Technology: Arduino, Distance Sensors, Led display, Custom made Plexiglas, Pure Data

Event & Location: Ponton Gallery, Budapest, Hungary, Collegium Hungaricum, Berlin, Germany

Untitled performance

Description:

URL:

Technology:

Event & Location: UH FEST Local, Merlin Theatre, Budapest, Hungary

Field Diffusion

Description: Sound installation with Kim Cascone

URL: vimeo.com/1069077

Technology: Field recordings, Outdoor speakers

Event & Location: streets of Budapest, Hungary

No Copy Paste

Description: Live coding performance

URL: ncp.kibu.hu

Technology: Fluxus, Pure Data

Event & Location: Pixelache Festival, Helsinki, Finland

Cycles II

Description: Generative installation

URL: www.binaura.net/stc/wrx/cycles/cycles.htm

Technology: Pure Data, Video Feedback, Painted Glass Prints

Event & Location: Virtual Dreams, A22 Gallery, Budapest, Hungary

2007

Strings

Description: Interactive installation

URL: www.binaura.net/strings

Technology: IR Computer Vision, Processing, Pure Data

Event & Location: Audio Art Festival, Bunkier Stuki, Krakow, Poland

New Music Expo, Kunsthalle, Budapest, Hungary

Hook Me Up

Description: Interactive installation)

URL: www.binaura.net/stc

Technology: Arduino, Sensors, ActionScript

Event & Location: Fuori Salone, DotDotDot, Milano, Italy

Cycles

Description: realtime audio/video processing performance

URL: www.binaura.net/stc

Technology: Pure Data, Sound Reactive Video Feedback

Event & Location: Trafo, Budapest, Hungary

2006 *Silent Room*
Description: Interactive video installation
URL: www.binaura.net/stc
Technology: Computervision, Max Msp, Processing
Event & Location: Sziget Festival, Budapest, Hungary

Vinyl Tree
Description: Sound installation
URL: www.binaura.net/stc
Technology: Vinyl, custom built pickup, motor
Event & Location: Dinamo, Budapest, Hungary

2005 *Binaura*
Description: Interactive mandala
URL: www.binaura.net/binaura-sziget
Technology: Computer Vision, Max Msp, Processing
Event & Location: Sziget Festival, Budapest, Hungary

Workshops, talks & lectures

2018 *DataFaces*
Description: Data politics, face tracking & creative coding
Client & Location: EPAM (Budapest, H, Singapore)
URL: <https://github.com/stc/face-tracking-p5js>

Visual Music & Machine Learning
Description: Turning drawings into code, improvising with machines
Client & Location: Leonardo Journal, Prezi HQ, Budapest (H)
URL: <https://becominghuman.ai/visual-music-machine-learning-workshop-for-kids-a90c957dab33>

2017 *Creative Code (Turning Data to Art)*
Description: Development & realisation of a course on Data Visualization & Creative Coding
Client & Location: Moholy-Nagy University of Art & Design (MOME Open), Budapest
URL: <http://open.mome.hu/creativecode/>

Borrowed Analogies
Description: Conference talk on *The role of play and borrowed analogies within today's interactive media experience*
Client & Location: CILECT Conference, Zürich
URL: <http://cilect.org>

Similarity Dimensions within Creative Visualizations
Description: Talk and presentation
Client & Location: Datascience Meetup, Budapest
URL: https://www.meetup.com/budapest_data_science

2016 *SodaLib Workshop*
Description: Extending Pure Data & OpenFrameworks for data sonification
Client & Location: International Pure Data Convention, New York
URL: <https://github.com/stc/ofxSodaLib>

RoboCamp #001
Description: Servo based robot building workshop using Arduino & Pure Data
Client & Location: Trafó House of Contemporary Arts
URL: <http://trafo.hu/en-US/binaura>

- 2015 *Making Sonic Instruments*
 Description: Designing sound based interfaces, sonification and visual music using Processing & Pure Data
 Client & Location: ISEA, Vancouver, Canada, ICAD, Graz, Austria
 URL: <http://www.binaura.net/stc/ws/isea>
- 2014 *Guest Lecturer*
 Description: Giving courses on interaction design, sonification & web technology
 Client & Location: Moholy-Nagy University of Arts, Budapest, Hungary, Ongoing
Procedural Drawing
 Description: Computational thinking without the use of computers
 Client & Location: Sandarph Artist Residency, Partapur, India, 2014
 URL: <http://www.binaura.net/stc/fp/?x=entry:entry140220-132740>
- 2013 *Poetic Interfaces*
 Description: Discovering the unexpected in the creative process, Glitch aesthetics
 Client & Location: Bergen National Academy of the Arts, Bergen, Norway, 2013
 URL: <http://www.binaura.net/stc/ws/bergen>
- Interaction Modalities*
 Description: Open technology, representational systems, sound, arduino
 Client & Location: Bergen National Academy of the Arts, Bergen, Norway, 2013
 URL: <http://www.binaura.net/stc/ws/bergen>
- Processing Android Workshop*
 Description: user interaction, multitouch design
 Client & Location: Prezi HQ, Budapest, Hungary, 2013
 URL: <http://www.binaura.net/stc/ws/prezip5android>
- 2011 *Virtual <> Actual*
 Description: Investigating the field between virtual and actual presence, data, social activities.
 Client & Location: Bergen National Academy of the Arts, Bergen, Norway, 2011
- Others*
 Procedural Drawing Course (coding without computers). MOME, Budapest, Hungary, 2013
 Pure Data (using Arduino) + Fluxus Workshop (with Gabor Papp), Cakovec, Croatia, 2009
 Pure Data + Fluxus Workshop (with Gabor Papp), Zagreb, Croatia, 2009
 Pure Data + Arduino Workshop (with Massimo Banzi). Millenaris, Budapest, Hungary, 2008
 Tangible Interface Course (using Pure Data + Reactivision). MOME, Budapest, Hungary, 2008
 Pure Data Workshop, using Arduino for physical interactions. Kitchen Budapest, 2007
 Pure Data Workshop, introduction to sound and image. MOME, Budapest, Hungary, 2006

Works (applied, client based)

- 2018 *Wagner Days*
 Description: Sound reactive visualization
 Technology: OpenFrameworks, Pure Data
 Client: MÜPA, Palace of Arts, Ogilvy
 Location & Time: MÜPA, Palace of Arts, Budapest, Hungary, 2018
 URL: <https://www.youtube.com/watch?v=EAYUhqAYa60>
- 2016 *Colour Mirror*
 Description: Cloth based colour visualizations
 Technology: OpenFrameworks
 Client: Museum of Applied Arts
 Location & Time: Museum of Applied Arts, Budapest, Hungary, 2016
 URL: <http://www.imm.hu/en/exhibits/view/400,In+the+Mood+for+Colours>

Bike Trips in the Wine Region

Description: interactive game using a real, sensor equipped bicycle and a screen for navigation
Technology: Raspberry PI, OpenFrameworks
Client: Wine Museum
Location & Time: Wine Museum, Tokaj, Hungary, 2015
URL: to be confirmed

Festival Buddy

Description: telepresence performance based on videochat and servo controlled robot technology
Technology: Smart Servo Programming (C++), Electric Imp (Squirrel, JavaScript, PHP)
Client: DDB / Hungarian Telekom
Location & Time: Volt Festival, BalatonSound, Sziget Festival, Budapest, Hungary, 2015
URL: <http://festivalbuddy.hu>

2015

Algorithmic Zoo

Description: card based interactive installation for exploring different species from the Bible
Technology: OpenFrameworks, ARToolkit, Processing
Client: Bible Museum
Location & Time: Bible Museum, Gönc, Hungary, 2015
URL: <https://youtu.be/atf8uP0SbfA>

Bike Trips in the Wine Region

Description: interactive game using a real, sensor equipped bicycle and a screen for navigation
Technology: Raspberry PI, OpenFrameworks
Client: Wine Museum
Location & Time: Wine Museum, Tokaj, Hungary, 2015
URL: to be confirmed

Festival Buddy

Description: telepresence performance based on videochat and servo controlled robot technology
Technology: WebRTC, Javascript, Electric Imp, iOS (WebView)
Client: DDB / Hungarian Telekom
Location & Time: Volt Festival, BalatonSound, Sziget Festival, Budapest, Hungary, 2015
URL: <http://festivalbuddy.hu>

2014

SoundCode

Description: analog sound transmission encoding & decoding proof of concept prototype
Technology: Android, iOS (OpenFrameworks / PureData)
Client: Sonoroo
Location & Time: Budapest, Hungary, 2014
URL: (N/A - product release under development)

HCI Research (ongoing)

Description: interaction prototypes, interface design
Technology: Android, Processing, Web Technologies
Client: Prezi.com
Location & Time: Budapest, Hungary, 2013 – Ongoing
URL: <http://prezi.com>

Transform@lab

Description: Interaction design, cross media workshop
Technology: Processing, Project & Application development, Kinect
Client: GOBELINS (FR), MOME (H), University of WALES (GB)
Location & Time: Budapest, Paris, Newport, 2011, 2012, 2013, 2014
URL: <http://www.transformatlab.eu>

2013

Led Printer Drone (Égi Galéria)

Description: Networked Interactive Public Art Installation
Technology: Processing, OpenFrameworks, Web Technologies
Client: DBB Hungary
Location & Time: Budapest, Hungary, 2013
URL: <http://www.binaura.net/led-printer>

Kaleidoscope

Description: Networked Interactive Dressing Room Project
Technology: Android, OpenFrameworks, Web Technologies
Client: Je Suis Belle
Location & Time: Budapest, Hungary, 2013

Talking Fruits, Whispering Wall

Description: Small electronic objects with responsive sound design
Technology: Arduino, Raspberry PI, Pure Data
Client: PIM (Petöfi Museum of Literacy) / Weöres 100 Exhibition
Location & Time: Budapest, Hungary, 2013

2012

Tactile

Description: Tangible interface for conductive tablets & mobile devices
Technology: Android, Processing, Pure Data
Client: 1369m³ Game Development Contest (Special Prize)
Location & Time: Budapest, Hungary, 2012

Augmented Reality Fruits

Description: Web based interactive interface
Technology: ActionScript, Artoolkit
Client: Freelance work
Location & Time: Budapest, Hungary, 2012

2011

Chevy 100

Description: GPS based realtime drawing application
Technology: GPS sensors, Android, PHP
Client: Chevrolet
Location & Time: Budapest, Hungary 2011

IceGrapher

Description: Interactive game where participants are drawing by skating
Technology: Computervision, Openframeworks, Processing
Client: HUNGEXPO
Location & Time: Budapest, Hungary 2011

2010

KIBU Researcher

Description: Project development at Kitchen Budapest Media Lab
Technology: Interaction design & programming
Client: Kitchen Budapest
Location & Time: Budapest, Hungary, 2007-2010
URL: <http://www.kitchenbudapest.hu>

OperaLooper

Description: Standalone application for live performances
Technology: Pure Data
Client: Kitchen Budapest
Location & Time: Brooklyn Museum, NYC, (USA), 2010

2009

Swf Hacks

Description: Software development for the 'Prezi' presentation tool
Technology: ActionScript
Client: Prezi.com
Location & Time: Budapest, Hungary, 2009

2008

Bug

Description: Experimental website for interactive jewel
Technology: ActionScript
Client: Bence Adam Kiss
Location & Time: Budapest, Hungary, 2008

2005 *Finno-Ugrian Vampire*
Description: Interactive moviescript
Technology: ActionScript
Client: Janos Xantus (Film director)
Location & Time: Budapest, Hungary 2005

Prizes, scholarships, research

Post Doctoral Research Scholarship on Realtime Interactions & Machine Learning, Moholy-Nagy University of Art & Design (UNKP), 2016 - 2017

International Committee for Audiovisual and New Image and Sound Technologies – Special Prize (multimedia), 2015

Sandarbh Artists Residency – Partapur, India, 2014

Festival of Media Global Awards - Led Printer Drone (Égi Galéria) wins the Golden Medal in *Best Use of Technology* category (interaction design, software implementation), 2014

Favourite Website Awards - SoundBow is selected as FWA Mobile of the Day (creative programming), 2012

1369m³ Game Development Competition - Special Prize (creative programming), 2012

Digitópia International Patching Competition - 1st prize (visual programming), 2010

Phd scholarship - Budapest, Moholy-Nagy University of Art & Design, 2009

Erasmus scholarship - Milano, Brera Accademia delle Belle Arte – one semester, 2007

Intel Duality of Art Competition - 1st prize (video art), 2006

Vivatis International Contest - 3rd prize (mixed media), 2004

Arc Poster Annual - 1st prize (graphic design), 2003