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Finnish/EU and U.S. dual citizenship, Finnish/EU and U.S. Driver's License

EDUCATION

- **Master's Degree in Interactive Telecommunications, New York, 2000**
New York University, Tisch School of the Arts, Maurice Kanbar Institute of Film and Television, Interactive Telecommunication Program (ITP). Graduation with highest honors. GPA 3.916/4.00
- **Bachelor of Music in Music Technology, New York, 1996**
New York University, Steinhardt School of Education, Music Technology Program. Graduation with Highest Summa Cum Laude Honors. GPA 3.966/4.00
- **Diploma, 1993**
Center for the Media Arts (CMA), School of Audio Engineering. Graduation with Highest Honors.
- **High School Diploma, 1989**
Käpylä Evening High School, Helsinki. 1989.

LONGTIME PROFESSIONAL MEMBERSHIPS, ASSOCIATIONS

ACM	Association of Computer Machinery
AES	Audio Engineering Society
IEEE	Institute of Electric and Electrical Engineers
SIGGRAPH	ACM Special Interest Group on Computer Graphics
SMPTE	Society of Motion Picture and Television Engineers
SPIE	International Society for Optics and Photonics
Pi Kappa Lambda	National Music Honors Society lifetime membership, nominated by NYU

WORK EXPERIENCE

FINLAND: 2016 - present:

- **Own company PARASENSE formed in 2020, Vastuu Group "Trusted Partner" rating, Valttikortti:**
A multisensory immersive interactive design consultancy in Helsinki within seams of art, design and technology. Working on a wide range of projects for artists, galleries, organizations and government: February 2020 – present.

Projects:

- Tabula Rasa multisensory expression space for Finnish Autism Foundation Herttoniemi Unit for spring 2024 and Oodi Library for December 2023, supported by a Finnish Cultural Foundation SKR and OKM Taiketa grants, sponsors: Epson Finland. In collaboration with Jani Hietanen, Jyväskylä University Music Therapy Program's Vibrac unit's researcher Esa Ala-Ruona and Puredesign's Esa Vesmanen. 2021-2023.
- Media Artist Laura Beloff's R-bus sensor data and AI-based realtime sound installation for Kalasatama district in Helsinki. Technology production, partnerships, sponsorships. Curated by HAM Museum, for Helsinki City Council, presented as part of the Night of the Arts and Helsinki Festival. Development period 2021-2023.
- Midjourney AI Visuals for FLOW Festival 2023 main stage concert for Olavi Uusivirta's 40/20 concert, for songs, together with Ville Seppänen. Customer: Olavi Uusivirta & Live Nation Finland, 2023.
- Audiovisual experience design, concept design and technology production for two artworks at Finnish National Gallery Ateneum: Permanent projection installation "Värikuru" and temporary sound installation "Metsänpeitto", in collaboration with Jani Hietanen (Touch Designer programming, visual design, sound design), 2023.

- Kaisu Koivisto's and Anna Nykyri's Defrost/Sula interactive videoinstallation: AV Technology coordination, programming, collaboration partners. For Wroclaw Biennale Poland, Lux Light Festival (at Forum Box), Oodi Library, Helsinki, 2022.
- Parasense's immersive urban mobile 3D sound interface Audiowalk's development and betatesting in the Kalasatama, Suvilahti and Teurastamo area, in collaboration with Jani Hietanen. Fall 2021-Spring 2022.
- Leena Jääskeläinen's VR installation "Making Art in My Dreams", development as technology producer, distribution, grants, supported by AVEK Koperasi, Finnish Film Foundation SES and Aalto Studios, 2021-2023.
- Parasense's Tabula Rasa multisensory room for Finnish Autism Foundation and Oodi Library, 2021-2023.
- Development of Parasense's embodied installations "Influencer" (with Tatu Heinämäki) and AI/Holographic installation "Selfie", (with Tatu Heinämäki and Hannu Töyrylä) with Taike funding, 2021.
- "diip bodily instrument" realization at Oodi Library. diip.parasense.fi. Supported by AVEK. Sep-Oct 2020.
- ArtLab: Concept designer and AV & Technology consultant in a competition winning ArtLab biodiversity performance project for the Forest Ministry, Nature's Concert Hall. Supported by Kone Foundation. 2020-2021.
- Koistinen Kantele's Metakantele project. Concept and Interaction designer. 2020-2023.
- Workshop designer, instructor, curator and jury member for TAIKE/Finnish Ministry of Education and Culture's "immersive Animation for Oodi" workshop, 2020 and "Ääreen" workshop 2021 (2nd time).
- Super slow motion stepper motor time-lapse camera programming for artist Petri Eskelinen, for Mänttää's Serlachius museum's Scifi themed "Art Odyssey 2021" - exhibition. 2021.
- Robocam rail camera realization and programming for media artist Roberto Fusco's OSSA installation for LUX light art festival, STOA Helsinki. 2021.
- "Protagonist", 1st person POV interactive TV/realtime cinema/Some hybrid series realized with spyglasses and binaural 3D microphones, and realtime compositing. Technology producer, consultant, with Virus Theater, together with Ville Seppänen, Jussi Sorjanen, Kasper Laine, Lauri Lundahl, Jokke Heikkilä, Hanna Nyman. fall 2021-fall 2023
- "Influencer", bodily gestural WWW installation based on a portrait 8k screen and Kinect Azure 3D camera.
- "Selfie", holographic installation for two people, relating to Selfie culture, using Kinect Azure's and Looking Glass holographic display, summer/fall 2021.
- 5760x1200 "Digital Fresco" triptych 3D visualization, modeling and animation for Snowcrash design group's retrospective at the Swedish National Museum in Stockholm, opening in April 2021.
- **Kunstventures Oy:** Creative Technologist/Coder. October 2017 – 2020: Realizing interactive audiovisual projects, AR, sound and video installations for leading Finnish artists, among them Pekka Kauhanen, Petri Eskelinen, Mari Mäkiö, Johanna Lecklin, Heta Kuchka, Elina Brotherus, Satu-Minna Suorajärvi and Marjo Levlín among others.
- Coding and technical consultation (Markov chain based hybrid language generation) for artist Tuomas Laitinen's [Swarm Chorus](#) installation at Oodi Library. The Library's Other Intelligences AT themed exhibition, as part of the Mobius Project by Finnish Cultural Institute in New York. [vimeo video](#). 2019.
- AV & Technology consulting for M-Cult Network Effects exhibition at the Oodi library's immersive Kuutio space for Disnovation.org. Nov. 16th, 2019.
- Aalto University Media Lab Sound in New Media Program: Masters's Thesis Advisor, critic and paper reviewer. October 2017 – present.
- Technology Manager/team member in a 3D scanning installation project for Fantomatico OY, Funded by AVEK/Kopioisto Creademo Grant. Summer 2017.

- Concept design/team member, Finnish Burning Man project Space on Fire/Cosmic Egg, together with people from Lunden arkkitects, Reaktor Space Lab, Aalto Design Factory and ArtLab. A large volunteer project which ended up in the Nevada Black Rock desert as part of Burning Man 2017. <https://spaceonfire.com/>
- Technology consultant/project team member in Hanna Haaslahti's 3D scanning installation "Captured" also known as "Life as an Image". Funding from Taika, Suomen Kulttuurirahasto and AVEK/Kopioisto Digidemo. 2016-2018.
- Visual interface prototype design and microcontroller programming for electric car charging startup Parkkisähkö OY. November-December 2016.
- Sparring/consulting for [Solu.co](#) social computer company on features of the Solu computer by key funder's request. Fall 2016.

USA: 1991-2016

- Thesis Instructor, Part Time Assistant Professor, Parsons MFADT Design & Tech. Sep. 2001 – May 2016
Parsons the New School for Design, Art, Media and Technology [MFADT Program](#)
Master's level studio courses and thesis studios on interaction and interface design, WWW, installations, electronic prototyping, wireless projects, workflow and tool development, open source hardware etc. 500+ students, 1000+ projects overseen.
- IT Network Design Consultant, Blue Telescope, New York
Full redesign and implementation of a new network infrastructure, NAS box, local and cloud usage.
March - May 2016.
- Director of Technology & Research, [Eyebeam](#) Art+Technology Center. February 2012 – May 2015.
- Senior Technology Manager, [Eyebeam](#) Art & Technology Center. May 2007 – February 2012.
- Project Director, Curator, AV & Media Producer, [Finnish Cultural Institute in New York](#). 2001- 2007.
Exhibition projects at FCINY:
 - Curator, AV Tech [SAUMA \[Design as Cultural Interface\] touring exhibition. 2003 – 2008.](#)
 - AV & Media Producer [Eero Saarinen: Shaping the Future](#) touring exhibition. 2003 – 2010.
 - AV Tech [PixelAche](#) computer art event, Gershwin Hotel, New York. June 2003.
- Curator, AV Technology Consultant, Technology Sponsorships, [F2F: New Media Art from Finland](#) touring exhibition, Ministry of Foreign Affairs, Finland. 1999-2003.
- AV system designer and installer, Solus Alternative Asset Management, New York, 2007.
- Sound recording studio redesign and construction, New York University Nordoff-Robbins Music Therapy Center. 2004.
- Freelance Concept/Interface Designer, [ESIDesign](#), Inc. New York. 2000.
- Concept/Interface Designer, Research Associate, [NEC C&C Research Lab](#), NJ. 1999-2000.
- Silicon Graphics Technology Assistant, New York University's [Center for Advanced Digital Applications \(CADA\)](#) New York. 1999.
- 3D Computer Visualization Artist, Antennadesign/NYC MTA [R142 Subway Cars](#) New York. 1997 – 1998.
- AV Technology Assistant, NYU Interactive Telecommunications Program, New York. 1996-1998.
- Studio Assistant, Intern, Francois Kevorkian's Axis recording studio, New York. 1993-1994.

VISITING LECTURE/GUEST CRITIC DUTIES, TALKS IN CONFERENCES, EXHIBITIONS, ROUNDTABLES, RADIO INTERVIEWS:

- 2023 Radio Helsinki, Cadia X Ham program, relating to R-Bus project, together with artist Laura Beloff. 17.8.2023. <https://www.radiohelsinki.fi/ohjelma/cadia-x-ham/>
- 2023 Haaga-Helia & Finnish National Opera & Ballet lecture event "Home Opera", on "Itsestäänselvyyksiä", relating to XR and elderly people. 9.5.2023, Oodi Library's immersive Kuutio space.
- 2022 Creve/Humak lecture "Digital Twins" lecture and consultation event, subject: Multisensory interactive immersive artworks 30.3.2022.
- 2022 UkkoPro client magazine, Ronja Norja interview regarding entrepreneurship in Art field, 21.1.2022
- 2021 Radio Helsinki Interview as part of the "Art or Technology" discussion series: <https://www.radiohelsinki.fi/ohjelma/taide-vai-teknologia/>
- 2021 Teatterin Tiedotuskeskuksen TINFOn "Mitä Kuuluu" haastattelusarja: <https://www.tinfo.fi/fi/Marko-Tandefelt-mita-kuuluu>
- 2021 Expanding Horizons of Art: TAIKE/Finnish Ministry of Education & Culture and Turku Fine Arts Academy's lecture series, 11.2.2021.
- Guest Lecturer at UniArts Helsinki sound art course, October 1, 2020.
- AV-Arkki "Installing New Media Art"- lecture, October 22nd 2019
- Speaker and panelist at Metropolia "Digisti Yhdessä" XR seminar, Helsinki, March 22nd, 2019
- Visiting Lecturer at Aalto Medialab Generative and Interactive Narratives- course. Feb. 8th, 2019
- Enactive Virtuality lecture with Hanna Haaslahti at Tallinn University Dec. 15th, 2018.
- Finland 100 Years video per request of Finnish Foreign Ministry, July 28th 2017. <https://www.youtube.com/watch?v=z2-7u6w05Sw>
- Pasadena Art Center College of Design 2015 Summer residency Jury. 2014. <http://mediadesignpractices.net/lab/2014/12/2015-residency-cfp/>
- Guest Critic at Krzysztof Wodziscko's [Architecture of Cultural Prosthetics](#) class at Harvard School of Architecture, December 2014.
- FATLAB [Fat Gold Exhibition](#): Public Access Tech Support Call, 3.4.2013.
- Roundtable discussion member, as part of "Gimme More: Is Augmented Reality the New Medium?" exhibition at Eyebeam New York, 2013.
- Future of Labs roundtable with NYTimes, Museums present, organized by Amelie Marzec, Eyebeam, June 12th, 2012.
- Conference Presenter: [Virtual Reality World 2001](#) Barcelona at Pompeu Fabra University, 2001.
- [Guest Lecturer at Krzysztof Wodziscko's class at MIT Advanced Visual Studies](#) studies program, on musical sensor-based interfaces, physical computing. Now [MIT ACT](#), 1999.

ARTIST ASSISTANT AND GALLERY/MUSEUM WORK

- Repairing a broken Arduino based Interactive Metronome by a deceased German Artist Monika Hoinkis for the "Slow Design" exhibition at Pratt Manhattan Gallery per curator's request. New York. Dec. 2014.
- Transparent LCD Display/computer prototype for video artist Toni Dove. Fall 2003.

- Audio Technology Consultant, 4.2 Genelec speaker setup, tech sponsorship. Lower Manhattan Cultural Council's "[New Views](#)" 9-11 -exhibition at World Financial Center. Oct 2002-Jan 2003. for video artist Pia Lindman.
- Technical Assistant for Virtual Reality Scientist/Musician Jaron Lanier, driving Silicon Graphics/Body Electric VR systems, rewiring of sound studio. New York. 1998.
- Live Sound Engineer, Continuum group's concert, Kaija Saariaho's electro-acoustic piece "Laconisme de L'aile" for flute and live electronics. Merkin Hall, New York. 4/1997.
- Assistant for the "Artist of the Year 1986" Outi Heiskanen, Helsinki, Finland. Work consisted of designing and constructing a large cow made of metal wire, paper and thin gold plates. September 1986.

JURY MEMBERSHIPS, MENTORING, ARTIST IN RESIDENCIES, WORKSHOPS:

- Metropolia XR Center mentoring by request of the center, in following projects: Love Simulator, Birth of a Bird, Parallel Universe, 4D Haptics, 2021-2023, ongoing.
- Ääreen: Documentary animation competition jury member, central library Oodi, for the immersive Kuutio (Cube) space (Taike/Finnish Ministry of Education and Culture, Muu RY, Oodi Library, AVEK), 2021.
- Mediakuutio competition jury, for the Central Library Oodi's Immersive Kuutio (Cube) space (Taike/Finnish Ministry of Education and Culture, Muu RY, Oodi Library, AVEK), 2020.
- Board Member in Media art organization M-Cult, fiscal representative, 2021- ongoing.
- Paper Reviewer for Entertainment Computing Journal, 2021.
- Paper Reviewer for Entertainment Computing Journal, 2019.
- Paper Reviewer [ACE2018: 15th International Conference on Advances in Computer Entertainment Technology](#), Missoula, Montana, USA, 2018.
- Paper Reviewer for Entertainment Computing Journal, 2018.
- Paper Reviewer for Entertainment Computing Journal, 2017.
- Program Committee Member for papers in [ACE2016: 13th International Conference on Advances in Computer Entertainment Technology](#), Osaka, Japan, 2016.
- Sub-reviewer for papers in [ACE2015: 12th International Conference on Advances in Computer Entertainment Technology](#), Iskandar, Malaysia, 2015.
- Jury Member for Pasadena Center College for Art & Design Media Design Practices/Lab+Field [2015 Summer Research Residency](#). Spring 2015.
- Mentor for [whitesave.me](#) project for a [www.thoughtworks.com](#) team at Art-A-Hack 2015.
- Sub-reviewer for papers in [ACE2014: 11th Conference on Advances in Computer Entertainment Technology](#), Funchal, Madeira, 2014.
- [Lower Manhattan Cultural Council \(LMCC\)](#) Advisory Council Member 2008 - 2011.
- Eyebeam Residency ja Fellowship Jury member. 2010 - 2015.
- [SIGGRAPH Asia 2009](#) Paper Submissions' Jury Member 2009.
- [IRCAM](#) Academie d'ete academy, Centre Georges Pompidou, Paris, France. Summer 1998.
- Artist in Residence at [Cite Internationale des Arts](#), Paris, France. 1998.
- Tonmeister Classical Music Production Intensive Courses I & II. NYU Music Technology Program, New York. 1993 - 1994.

CONCEPTING AND REALIZATION OF HACKATHONS AND DESIGN EVENTS:

- 2014 Concepting of themes per Microsoft Design Studio's request for "Captivated by Her" workshop relating to Spike Jonze movie "HER". Partners: Warner Brothers, Vice Magazine/Creators Project, NYU Tisch Film & TV school.
- 2012 Concepting and production of an immersive interactive New Cinema workshop relating to future of cinema, together with Framestore 3D/SFX company. Partners: Framestore, Intel, Vice Magazine/Creators Project, Eyebeam.

COMPETITION EXPERIENCE:

- 2024 Competition entry for an interactive installation for Nordea Bank Helsinki, with Jani Hietanen.
- 2020 Helsinki Energy Challenge: creation of a multidisciplinary team: <https://energychallenge.hel.fi/>
- 2020 Alvar Aalto Finnish Pavillion finalist team member for the Venice Architectural Biennale 2020 <https://www.safa.fi/uutiset/suomen-paviljongin-nayttely-venetsian-arkkitehtuuribiennaaliin-on-valittu/>
- 2020 AV & Interaction design consultant for ArtLab, team member in a winning proposal for Forest Ministry's Nature's Concert Hall multisensory performance project. Biodiversity project based on the lives of tree bumblebees (*Bombus Hypnorum*). Musicians involved: Apocalyptica's founder cellist Max Lilja and Ringa Manner from Ruusut/The Hearing. Supported by Kone Foundation.
- 2018 Finnish National Opera's Opera Beyond competition top 3 finalist team. Special Price of 5000 euros. Curated by conductor Esa-Pekka Salonen and dramaturge/singer Paula Vesala.

PERSONAL INTERFACE DESIGN, R&D, ART, ELECTRONIC MUSIC PROJECTS

- 4K headmount VR display prototype, 2020.
- Multichannel Olfactory Scent interface for virtual reality headmount displays. 2014.
- Sensorbased MIDI glove instrument in "Design and Technology - 10 Years Running" exhibition, Chelsea Art Museum, New York. April 2007.
- Water based collaborative musical instrument, with Stephanie Hunt, New York Make Music Day, June 2007.
- Musical MIDI-based Glove controller instrument. 2006-2007.
- Computer/visual installation as part of Matthieu Laurette's conceptual artwork at Eero Saarinen's TWA Terminal at JFK Airport in the [Terminal 5 art exhibition](#). On the request by Foreign Ministry of Finland. Oct. 2004.
- Wireless portable 360 degree Surround Video Device. Concept, industrial design and prototype construction, NEC C&C Research Laboratory, Princeton NJ. 2000.
- Electronic tilt-sensor based musical instrument, shown at Paul Allen's Interval Research Gallery, 1998.
- Immersive Interactive Video Space, viewed with LCD shutter glasses. 1998.
- Musical Glove controller for Max/MSP software Kurzweil sampler, parabolic speakers. 1997.
- Magnetic 6 string hexaphonic MIDI pickup for Electric Bass. 1997.
- Fretted 5 string, 4 string and headless electric basses, with carbon fibre and wooden necks, with MIDI synth bass pickups. 1989-2020
- Electric Solid Body Custom Guitar. 1988.

PUBLICATIONS, ARTICLES, WWW:

- Translation of [Arduino Bots and Gadgets](#) book for O'Reilly / Make, March 2011.
- 600 page New Cinema/VR Technology Blog: <http://www.tandefelt.com/newcinema/> (used as a reference by Aalto University VR students)
- Mention in "[Senses and the City: An Interdisciplinary Approach to Urban Sensescapes](#)", edited by Mădălina Diaconu, Eva Heuberger, Ruth Mateus-berr, Lukas M. Vosicky. 2010-11.
- Mention in New York Times: [Futuro Flashback: The Prefab from Another Planet](#), July 28, 2005.
- New York R142 subway car 3D renders in "[New York Subways: An Illustrated History of New York City's Transit Cars](#)", NYC Metropolitan Transit Authority 1997, 2004.
- New York R142 subway car 3D renders in "[Evolution of New York City Subways: an Illustrated History of New York City's Transit Cars, 1867-1997](#)". Johns Hopkins Press. ISBN 0801868866. 2002.
- Foreword in "[F2F: New Media Art from Finland](#)" publication. Publisher: Finnish Cultural Institute in New York. ISBN 0-9724881-0-3, 2001.
- New York R142 subway car 3D renders in:
 - AXIS design magazine, # 78, Tokyo, Japan. 1999.
 - DESIGN NEWS magazine, #241, Tokyo, Japan. 1998.
 - "Evolution of New York City Subways" by NYC MTA. 1998
- SIGGRAPH 97 Conference report in Visio-lehti, Edita Oy, Finland. 10/1997.
- "Amerikka Opettaa", aastAVeehen, Article on my NYU Tisch ITP studies, Visio-lehti, Finland. 1/1997.
- International Symposium on Electronic Arts, ISEA 94' -report, in [Muusikko](#) -magazine, Helsinki, Finland. 1994.

SCHOLARSHIPS, GRANTS

- AVEK Kapiosto Creademo grant for development of a new interactive Paracam camera concept, 2022.
- Finnish Cultural Foundation's grant for a working group, for planning and realization of a multisensory interactive Tabula Rasa room. 2022-2024.
- Taike/Finnish Ministry of Education and Culture production grant as part of the "Protagonist" group. 2022
- Taike/Finnish Ministry of Education and Culture Covid operational grant for Parasense, for developing and realizing a multisensory room prototype Tabula Rasa for the Finnish Autism Foundation. 2021.
- Taike/Finnish Ministry of Education and Culture production grant for developing "Selfie" AI/hologram installation under Parasense toimimelle, for three people's working costs. 2021.
- Taike/Finnish Ministry of Education and Culture production grant for "Influencer" installation. 2021.
- AVEK Kapiosto Mediarata production grant via Fantomatico, for diip bodily instrument and interactive audiowalk development. 2021.
- Finnish Cultural Foundation grant, as part of the "Protagonist" group. 2021.
- Finalist in the Burning Man Global Arts Grant project 2020, Covid cancelled the entire program.
- City of Helsinki Cultural Office project grant for Parasense tmi for diip bodily instrument. 2020
- AVEK Kapiosto Sound Art production grant for Parasense tmi for diip bodily instrument. 2020.
- AVEK Kapiosto Mediarata production grant via Fantomatico Oy, for diip bodily instrument. 2020.
- AVEK Kapiosto Creademo concept grant for diip bodily instrument. 2019.
- AVEK Kapiosto Vieterituki grant for production of sound artist Mari Mäkiö's installation at Oodi Library (as a team member, not a personal grant). 2018.
- AVEK Kapiosto Mediarata production grant for Kunstventures OY (role as a Producer). 2018-2019.
- AVEK Kapiosto Creademo grant Fantomatico OY (team member). 2017.
- AVEK Kapiosto Digidemo grant as part of Hanna Haaslahti's "Life as an Image" Project. 2016.
- AVEK Finnish Centre for Promotion of Audiovisual Culture personal grant. 2009.
- Greta and William Lehtinen Grant. 2007.
- Jenny and Antti Wihuri Scholarship. 1998.
- Finnish Cultural Foundation Grant. 1998.
- NYU Tisch School of the Arts, ITP Graduate Fellowship. 1996-1998.

- Finnish Cultural Foundation Grant. 1996.
- Oskar Öflund Foundation Scholarship. 1996.
- New York University School of Education Morse Music Scholarship, 1994-1996.
- New York University Education Scholarship. 1994-1996.
- Oskar Öflund Foundation Scholarship. 1995.
- Finnish Cultural Foundation Grant. 1995.
- Art Council of Finland Grant. 1995.
- Walter Eriksen Music Scholarship. 1995.
- League of Finnish-American Societies Scholarship. 1995.
- City of Helsinki Arts Grant. 1994.
- Finlandia Foundation Grant. 1994.

SOFTWARE:

Mac OSX, Windows 10Pro/11Pro, Linux, IT/Core Network protocols, MS Office (Word, Excel, Powerpoint), Adobe PS/AE/AI/ID/PR, Autodesk Maya, 3DSMax, Rhino 3D, Maxon Cinema4D, Unity3D, Arilyn AR, Agisoft Metashape and 3DSom 3D Photogrammetry tools, Apple Logic X, Protools, Max/MSP/Jitter, Brightsign Brightauthor, Arduino, Teensy and related microcontroller coding, Python.

LANGUAGES

Finnish	Native
English	Fluent (25 years in the U.S., translation, legal, acting/voiceover experience)
French	Basic