

Contact

Zurich
contact@walzer.tech

www.linkedin.com/in/alexwalzer
(LinkedIn)
walzer.tech/ (Company)

Top Skills

Negotiation
Teamwork
Market Research

Languages

German (Native or Bilingual)
English (Full Professional)
Italian (Professional Working)

Certifications

Fab(rication) Academy
Technology Entrepreneurship: Lab to Market
Paramedic (RS)
Australian Manufacturing Academy

Honors-Awards

End of Semester Exhibitions
Erasmus Exchange Scholarship
ABB Robotics Mobility Grant
Leonardo da Vinci Grant
BEYOND Building Barcelona exhibition award

Publications

Designing Robotically-Constructed Metal Frame Structures
Structural stay-in-place formwork for robotic in situ fabrication of non-standard concrete structures: A real scale architectural demonstrator
Mesh Mould: An On Site, Robotically Fabricated, Functional Formwork
Robotic AeroCrete - A novel robotic spraying and surface treatment

Alex Walzer

ConTech Entrepreneurship
Greater Zurich Area

Summary

I am interested in entrepreneurship, design thinking and open innovation in construction, let's chat!

Join our open and free ConTech Discord here: <https://tinyurl.com/ConTechDiscord>

Most recent publication on the design and perception of construction equipment (machines, robots..):
<https://link.springer.com/article/10.1007/s41693-022-00087-y>

Most recent podcast: <https://bricksbytes.show/podcast/026-alex-walzer-all-things-innovation-in-construction/>

Some thoughts on academia in US & CH: <https://swissnex.org/sanfrancisco/nextrend/cross-atlantic-foresight-for-academia/>

Experience

ETH Zürich
Doctoral Researcher
January 2021 - Present (2 years 5 months)

PhD Topic: Entrepreneurship for Digital Fabrication and Robotics in Construction

Visiting Doctoral Researcher: 2022-2023: CIFE Stanford University (hosted by Prof. Martin Fischer)

Assisting organizer: 9th Industrialized Construction Forum 2023 , Stanford University

Peer reviewer for: Engineering Project Organization Conference (EPOC) and International Symposium on Automation and Robotics in Construction (ISARC)

Conference Assistant: European Conference on Computing in Construction (EC3) 2022

technology for the production of slender reinforced concrete elements

Mobile robotic fabrication beyond factory conditions: case study Mesh
Mould wall of the DFAB HOUSE

Teaching assistant: Industrialized Construction 2021 (ETH Zurich, Golden Owl teaching award for the chair), ETH Makerspace Manager and Digital Fabrication Workshop Assistant 2021-2022

Affiliation with: ETHZ, Dept. of Civil Engineering (D-BAUG), Institute of Construction & Infrastructure Management (IBI), Chair of Innovative and Industrial Construction (IC, Prof. Daniel Hall), Chair of Sustainable Construction (Prof. Guillaume Habert), NCCR Digital Fabrication ("dfab").

walzer.tech

Innovation Consultant

April 2019 - Present (4 years 2 months)

Global

Better insights = better business.

Full-stack AEC technology consulting services that include market research, product/system R&D paired with strategy and business development reports. The main efforts are on strategy, risk mitigation and acceleration while helping you to save time on business aspects related to novel construction tech.

Past projects include: Tailored and confidential reports on market research, trend analysis, industry insights; feasibility studies (PoC), business modelling, feedback on pitch decks and grant applications, hiring. Past clients include: design agencies, public and private research institutions, Construction Technology & SaaS Startups, Non-profit organizations and Venture Capital funds in Europe and the US, as well as multinational construction industry conglomerates. Deadlines and deliverables are mutually discussed, NDAs are optional but recommended. Let's get going!

RMIT University

IMCRC Research Fellow

January 2020 - December 2020 (1 year)

Melbourne, Australia

We use robotic vision systems and smart software user-interfaces to streamline the process between design and custom manufacturing. Based inside the Architectural Robotics Lab at RMIT School of Architecture and Design we are developing bespoke robotised processes for Australian SMEs, such as Wire-arc Additive Manufacturing (WAAM) Metal 3D Printing and Incremental Sheetforming (ISF) - we do this in close collaboration with UAP Company, UoWollongong, FIF and the QUT in Brisbane. This collaborative

research is made possible by the Innovative Manufacturing Cooperative Research Centre (IMCRC) Design Robotics (A\$ 8m funding). Pro-active industry knowledge transfer is conducted through the Open Innovation Network, affiliated seminars, webinars and demos at the ARM Hub (Advanced Robotics for Manufacturing Hub).

ETH Zürich

4 years

Research Assistant

January 2017 - December 2019 (3 years)

Zurich, Switzerland

I worked at Gramazio Kohler Research / NCCR Digital Fabrication on Mesh Mould and the In-Situ Fabricator, incl. the NCCR dfabhouse 1:1 demonstrator at the Empa NEST building, tutoring in the Architecture BSc., MSc. and MAS Postgraduate Digital Fabrication Programme. I was a close collaborator with the ADRL, Disney Research Zurich's Computational Design and Manufacturing Group and Swiss Industry partners Zühlke, Schlatter, Bürgin 3D Creations. Other roles during this time included:

ETH Dean's Office StudentProjectHouse: Makerspace manager and freelance collaborator

ETH D-ARCH Rapid Architectural Prototyping Lab (RapLab): RA (Digital Prototyping)

-

<http://gramaziokohler.arch.ethz.ch/> - <http://dfabhouse.ch/> - <http://www.dfab.ch/>
<https://raplab.arch.ethz.ch/> - <https://sph.ethz.ch/makerspace/>

Trainee

January 2016 - December 2016 (1 year)

Fab Lab Barcelona

FabLab Intern / Trainee

February 2015 - June 2015 (5 months)

Barcelona, Catalonia, Spain

R&D in both IaaC and Valldaura Labs. Projects include the Smart Citizen Kit, a WikiHouse (built with AA students in a week) and an Open Source Deltabot (as part of MIT FabAcademy).

-

Bau.Kunst DP & ecker.cc

Junior Architect

July 2009 - February 2012 (2 years 8 months)

Vienna, Austria

Design, planning and fabrication of projects in Eastern Austria, see: <https://www.ecker.cc/referenzen/>

Arbeiter-Samariter-Bund Österreichs

Paramedic

September 2008 - May 2009 (9 months)

Vienna, Austria

Served in 800+ emergencies and successfully performed CPR a few times (tell me about real deadlines!)

Education

Stanford University

Visiting Doctoral Researcher, Civil and Environmental Engineering · (2022 - 2023)

ETH Zürich

Doctor of Science, Entrepreneurship for Digital Fabrication and Robotics in Construction · (2021 - 2024)

Technische Universität Wien

Master of Science (MSc) / Dipl.-Ing., Architecture, Spatial Planning · (2018)

Leopold-Franzens Universität Innsbruck

Bachelor of Science (BSc), Architecture · (2014)

RMIT University

Exchange Program, Architecture · (2015)