

Christoph Fink

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Curriculum Vitae

August 2024

EDUCATION

- 2017-2021 **University of Helsinki, Finland**
PhD in *Interdisciplinary Environmental Sciences*
(graduated with distinction)
- 2015 **Pontificada Universidad Católica del Ecuador, Quito, Ecuador**
Spanish (no formal degree)
- 2011-2014 **Paris Lodron University Salzburg, Austria**
doctoral studies in *Applied Geoinformatics*
(accrued credits transferred to the University of Helsinki 2017)
- 2004-2011 **University of Vienna, Austria**
MSc in *Geography*, major in *Cartography and Geoinformation*
(graduated with distinction)
- 2008 **Johannes Gutenberg University Mainz, Germany**
semester abroad

ACADEMIC AND PRACTICAL EXPERIENCE

- University of Vienna, Austria**
2024- postdoctoral fellow, Department of Social and Cultural Anthropology,
Marie Skłodowska-Curie Action project *Performing as the expert: urban activists' roles and identities online and offline*
- University of Helsinki, Finland**
2021-2024 postdoctoral researcher, Digital Geography Lab, Horizon 2020 project *URBANAGE*
- 2019-2021 researcher, Helsinki Lab of Interdisciplinary Conservation Science, European Research Council project *Wildtrade*
- 2017-2019 researcher, Digital Geography Lab, Suomen Akatemia project *Investigating illegal wildlife trade*
- University of Vienna, Austria**
2016-2017 researcher, Department of Social and Cultural Anthropology, FWF project *Configurations of Remoteness*
- Paris Lodron University Salzburg, Austria**
2011-2014 researcher, Interfaculty Department of Geoinformatics Z_GIS
- Freytag-Berndt & Artaria, cartographic publishing house, Vienna, Austria**
2007-2013 map editor, developer for web cartography
- webfreetv.com, Vienna, Austria**
2002, 2003 software engineer
- occasionally* projects in the fields of data visualisation and cartography, *examples on the following pages*

TEACHING EXPERIENCE

University of Helsinki, Finland

- 2022 *Automating GIS processes*
lecture/practical lab course, course main teacher
- GEO-Python*
lecture/practical lab course; course main teacher: Dave Whipp
- 2021, 2019, 2018 *Open GIS and Spatial Data Infrastructure*
lecture/practical lab course (Moodle); one practical module out of seven; course main teacher Elias Willberg
- 2020 *GIS project work*
supervising one group, together with Enrico Di Minin; course main teacher: Petteri Muukkonen
- 2019, 2018 *Urban GIS and Visual Tools*
lecture/practical lab course; guest lecture; course main teachers: Rami Ratvio, Sara Todorovic
- 2018, 2017 *Automating GIS processes*
practical lab course; one practical module out of seven; course main teachers: Henrikki Tenkanen, Dave Whipp)
- 2018 *Methods for evaluating human preferences*
lecture/practical lab course; together with Enrico Di Minin (course main teacher), Anna Hausmann, Gonzalo Cortés-Capano, Anna Haukka

University of Vienna, Austria

- 2016, 2017 *Urban Analysis III*
practical lab course; one out of four modules, together with Michael Holzapfel; main course teacher: Ramon Bauer
- 2013, 2014 *Open GIS and Open Data in Geographic Information Data Handling*
practical lab course, main course teacher
- 2012 *Webmapping*
introductory seminar, main course teacher

University of Salzburg, Austria

- 2012 *Geosimulation*
lecture/practical course, main course teacher
- workshops and seminars taught at EGEA congresses (see honorary activity)**
- 2013 *Okkupy Google Maps! How grass-root activists use geomedia to convey their beliefs*
EGEA Euromed Regional Congress, El Bosque, Cadiz, Spain
- 2012 *Transport development in polycentric metroregions - the case of Rhine-Ruhr*
EGEA Western Regional Congress, Hattingen, Germany
- 2010 *4 countries, 1 problem: trans-alpine cargo in the 21st century*
EGEA Western Regional Congress, Steinach am Brenner, Austria
- 2009 *Waterway transport 2.0: Moving goods and ports*
EGEA Western Regional Congress, Bingen, Germany
- 2008 *Municipalities and the environment: How can the use of GIS ease protection, planning and management?*
EGEA Eastern Regional Congress, Sinaia, Romania
- 2007 *Practical Usage of Opensource GIS*
EGEA Annual Congress, Ustroń, Poland

SUPERVISION EXPERIENCE

- ongoing Eemil Haaponen: **Mapping accessibility – Interactive visualization of travel time matrices (working title).**
Master's thesis, Master's programme in Geography, study track Geoinformatics, University of Helsinki
- ongoing Roope Heinonen: **Multi-criteria routing to investigate environmental exposure during urban mobility (working title).**
Master's thesis, Master's programme in Geography, study track Geoinformatics, University of Helsinki
- 2023 Eero Perola: **Driving speed deviation from the speed limits – an analysis using floating car data in the Helsinki Metropolitan Area.** Master's thesis, Master's programme in Geography, study track Geoinformatics, University of Helsinki
- 2021 Petteri Muilu: **Remote Sensing of Acid Sulfate Soils using Deep Learning and Aerial LiDAR Data.**
Master's thesis, Master's Programme in Data Science, University of Helsinki.

EVALUATION OF THESES

- 2022 Kayleigh C. Kavanagh: **Identifying Intrinsic, Instrumental, and Relational Values in Kumpula, Helsinki. A Participatory Mapping Study.** Master's thesis, Master's programme in Environmental Change and Global Sustainability, University of Helsinki.

RESEARCH FOCUS

urban transformation, active mobility	volunteered geographic information (VGI)
processes of appropriation of space(s)	big data (e.g., social media)
cities as possibility spaces for political and social participation	machine-learning/artificial intelligence
biodiversity conservation	data visualisation, data science
cartography, cartography as discourse	spatial and spatio-temporal phenomena

SELECTED PUBLICATIONS

- 2024 [Fink](#), Willberg, Klein, Heikinheimo & Toivonen: **A travel time matrix for the Helsinki region 2023, sensitive to time, mode and interpersonal differences.** *Scientific Data*.
- Willberg, [Fink](#), Klein, Heinonen & Toivonen: **'Green or short: choose one' - a comparison of walking accessibility and greenery in 43 European cities.** *Computers, Environment and Urban Systems*.
- 2023 Tupasela, Devis Clavijo, Salokannel & [Fink](#): **Older people and the Smart City – developing inclusive practices to protect and serve a vulnerable population.** *Internet Policy Review*.
- Willberg, [Fink](#) & Toivonen: **The 15-minute city for all? – Measuring individual and temporal variations in walking accessibility.** *Transport Geography* 106.
- 2022 O'Hern, Willberg, [Fink](#) & Useche: **Relationships among Bicycle Rider Behaviours, Anger, Aggression, and Crashes in Finland.** *Safety* 8(1).
- Sancho-Reinoso, Saxinger, [Fink](#), et al.: **Mapping hierarchies of mobility in the Baikal Amur Mainline region: A quantitative account of needs and expectations relating to railroad usage.** *Polar Geography* 45(3).
- 2021 [Fink](#), Toivonen, Correia & Di Minin: **Mapping the online songbird trade in Indonesia.** *Applied Geography* 134.
- Di Minin & [Fink](#), Hausmann, Kremer, Kulkarni: **How to address data privacy concerns when using social media data in conservation science.** *Conservation Biology* 35(2).
- 2020 [Fink](#), Hausmann & Di Minin: **Online sentiment towards iconic species.** *Biological Conservation* 108289.
- 2019 Toivonen, Heikinheimo, [Fink](#), Hausmann, Hiippala, Järv, Tenkanen & Di Minin: **Social media data for conservation science: a methodological overview.** *Biological Conservation* 233.
- 2018 Di Minin, [Fink](#), Tenkanen & Hiippala: **Machine learning for tracking illegal wildlife trade on social media.** *Nature Ecology & Evolution* 2(3).
- 2013 [Fink](#) & Koch: **Urban Segregation Revisted: incorporating cognitive space representations into agent-based residential models.** In: Koch, A., Mandl, P. (Eds.), *Modelling Social Phenomena in Spatial Context (=Geosimulation Vol. 2)*.
- 2011 [Fink](#): **Mapping together: on collaborative implicit cartographies, their discourses, and space construction.** *meta-carto-semiotics – Journal for Theoretical Cartography* 4.

SELECTED PROJECTS

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|------|---|---|
| 2018 | POREM.wien | interactive spatio-temporal data visualisation of places of remembrance relating to austro-fascism and national socialism |
| 2017 | Weltmuseum Wien: global flow of people | an interactive installation commissioned by the ethnographic museum <i>Weltmuseum Wien</i> , for its permanent exhibition 'World in Motion' |
| 2016 | austromorph.space | anamorphic maps ('cartograms') on topics of societal, political, and economical relevance |
| 2016 | beyondgentrification.com | data-driven, interactive maps visualising the results of a multi-local, multi-paradigmatic research project |
| 2015 | wirel-project.at/maps | interactive map showing the religious and ethnic diversity of Vienna |

SELECTED SOFTWARE

- 2022 Python wrapper for the R5 routing analysis engine (*work in progress, leading an international group of researchers*)
<https://github.com/r5py/r5py>
- 2021 downloader for complete histories of data and metadata of the microblogging platform Twitter
pypi.org/project/twitterhistory
- 2019 Python wrapper for the sentiment detection framework *webis*
pypi.org/project/webis
- 2017 QGIS cartogram plugin
christophfink.com/blog/cartogram-plugin-for-qgis3

HONORARY ACTIVITY

- 2020-2023 trainer, bicycle courses for adult learners, Helsingin Polkupyörällijät/Pyöräliitto
- 2005-2014 member of the European Geography Association for Students and Young Geographers (EGEA), workshop leader, congress organiser, editor of congress proceedings
- 2007-2009 student spokesperson on the board of the German Society for Geography (DGfG)

PRIZES, AWARDS, AND GRANTS

- 2023 Marie Skłodowska-Curie Action Postdoctoral Fellowship, with Dr Sanderien Verstappen, University of Vienna
- 2019 1st price in the Map Awards (category Digital Products) of the International Cartographic Conference, Tokyo, Japan for the interactive data visualisation project Politics of Remembrance (POREM.wien)
- 2016 member of the winning team, Copernicus Earth Observation Data Hackathon, Vienna, Austria

LANGUAGES

German (mother tongue)	English (full professional proficiency)	Finnish (beginner, CEFR level B1)
	Spanish (fluent)	French (beginner, CEFR level A2)

COMPUTER SKILLS

programming, script and markup languages: Python, Bash, R, Javascript/ES6, PHP, Perl, C, C++, Java

data analysis and visualisation: Pandas, GeoPandas, Numpy/SciPy, R, Tableau, NLTK, Spacy, matplotlib, seaborn, ggplot, Inkscape, Adobe Creative Suite, Blender, d3js

geographic information systems, cartography: QGIS, GDAL/OGR, ESRI ArcGIS, Grass GIS, PostGIS, GeoPandas, UMN MapServer, OpenLayers, Leaflet, GeoServer

database systems: PostgreSQL/PostGIS, MySQL/MariaDB, SQLite, CouchDB, MongoDB, LDAP, Oracle

systems administration: systemd/SysVinit (e.g., GNU/Linux, FreeBSD), Apple MacOS, Microsoft Windows

REFERENCES

Professor Tuuli Toivonen, Department of Geosciences and Geography, University of Helsinki, tuuli.toivonen@helsinki.fi

Professor Alois Humer, Department of Geography and Regional Research, University of Vienna, alois.humer@univie.ac.at

Dr Gertrude Saxinger, Department of Political Science, University of Vienna, gertrude.saxinger@univie.ac.at
Institute of Social Anthropology, University of Bern, gertrude.saxinger@anthro.unibe.ch

Ramon Bauer, City of Vienna, ramon.bauer@wien.gv.at