IVANN SCHLOSSER

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WORK

Environmental Change Institute, University of Oxford. Research Associate in Geospatial data analytics
(June 2024 - now)

- Global scale data analytics for infrastructure management and natural disaster risk modelling

Centre for Advanced Spatial Analysis, UCL, London. *Research Assistant in Geospatial analytics*
*(*Jan 2022-Sep 2023)

- Extracted and engineered data from open sources: OrdnanceSurvey, OSM, UKDataService
- Implemented a large-scale network and routing model using R/C++
- Developed open-source high performance code in R/C++ for predictive modelling of transport flows
- Built a deep learning model in **pytorch** predicting land use classifications on satellite/raster data
- Co-responsible for visualisation, reporting, summary statistics
- Presented at conference: [FOSS4GUK](#);
- Co-authored a research publication: [Activel travel modelling](#)

Global Institute for Innovation Districts (GIID), London. *Consultant (*March 2020 -June 2020)

- Developed a scalable and reproducible methodology for measuring footfall in areas of interest
- Produced a report and visualisations on the method and findings for stakeholders

EPFL, Lausanne, Switzerland. *Tutoring for physics students (*Sep 2017-Dec 2018*)*

- Helped several cohorts of students (+100) with advanced course material in physics

Technical Stack: Advanced Python, R, PostGIS, latex; Intermediate C++, SQL, git, JavaScript, HTML/CSS, Microsoft Office; Notions in PowerBI, Tableau

EDUCATION

MSc Smart Cities & Urban Analytics (with merit), **UCL**, UK (Sep 2019 - Aug 2021)

- [Dissertation](#)(distinction): *Deconstructing neighbourhoods: identifying London neighbourhoods based on mobility data and diversity of amenities.* Supervisor: Prof. Elsa Arcaute
- [GIS coursework](#)(distinction): *Waste management in England: waste movement in the context of circular economy.*
- [ARTVIZ](#): An interactive web-app to engage with the art collection of MOMA through time, colour and more.

BSc in Physics, **Ecole Polytechnique Federale de Lausanne**, Switzerland (Sep 2015-Feb 2019)

- Notable courses: Calculus, Linear Algebra, Computational physics, Statistical physics, Object oriented programming (C++)

Foundation year in mathematics (CMS), **EPFL***. Lausanne, Switzerland (*Sep 2014-June 2015*)*

Languages: native French and Russian, professional English, conversational Italian

Hobbys: Tennis, Mountain skiing, drums, photography

Habidatum inc. , London, UK. *Consultant (*July 2019 -Nov 2019)

- Produced and presented to stakeholders a report on the Big Data for cities landscape in the UK for strategic partnerships

INTERNSHIPS | EXPERIENCES
Avenir ingénierie contest, **Mobility of the future**, Paris, France. *Finalist with the project "feel libre"* (Oct 2018) • Proposing a new public transportation system for the city of Paris that would meet sustainability criteria, provide passenger comfort, and require minimal changes to existing infrastructure. Presenting in front of the jury and Q&A session
Laboratory of Quantum Gases, EPFL; Lausanne, Switzerland. *Intern (*July - Aug 2017*)* • Design of the power electronics circuit; Assembly and installation; Testing and debugging
Physics department, EPFL; Lausanne, Switzerland. *Class representative (*Feb 2018 - Jan 2019*)*

Applied math, Statistical physics, Software development, Mapping, Visualisation

SKILLS

Programming & software:

Skill	Experience	Tools
R	Data science and engineering, network analysis, package development. Visualization; RMarkdown reports, Shiny, Rcpp, RcppArmadillo	Rstudio, Git
Python	Data science and engineering, Deep learning	Pytorch, Pandas
JavaScript	Interactive web visualisation, Mapping	Node.js, leaflet.js
SQL	Relational databases, indexation of tables, spatial data manipulation	PostgreSQL, postgis
HTML/CSS	Web page layout and aesthetics	Github, VSCode
office	Text editing, data tables manipulation, simple presentations	Word, Powerpoint
C++	Object oriented programming for physical simulations, workflow optimization	VSCode, clang, CL, Git
Latex	Report writing with complex formulas, images, tables, bibliographies	Overleaf, Zotero
QGIS	Visualization, mapmaking, spatial data operations	Python, Postgis

ASSOCIATIONS

Club Photo EPFL, Lausanne, Switzerland. *VP for film photography*   Sep - Dec 2018

- Look for and negotiate the location, organization of the printing process by each artist, communication to attract visitors.
- Maintenance of the lab for development and printing.

Musical EPFL, Lausanne, Switzerland. *Drums maintenance*   Sep 2014 - Feb 2019

Cinema Club EPFL, Lausanne, Switzerland. *Organizing movie screenings*   Sep - Nov 2018

References

Name	E-mail	Relation
Prof. Elsa Arcaute	e.arcaute@ucl.ac.uk	MSc thesis supervisor, professor, research supervisor
Prof. Michael Batty	m.batty@ucl.ac.uk	professor, research supervisor
Prof. Frederic Mila	Frederic.mila@epfl.ch	Professor of Statistical physics