Gender
Female
Date of birth
Avril 20th, 1993
Nationality
French
Current home
Southampton, UK
Website
Personal
Institutional

Contact
Phone
+336 72 03 02 31
Skype
edithdarin
E-mail
edith.darin@
protonmail.com

Tech repo
Github
edarin
OpenStreetMap
edithdarin

Programming
OS Preferences:
Windows
GNU/Linux
Statistical Programming:
R (+++)
Python (+)
Reporting Purpose:
Microsoft Office
(Word, Powerpoint,
Excel)
Latex
R Markdown
R Shiny

Languages
French native
English fluent
German intermediate
Italian intermediate

Édith Darin
Social sciences, Statistics and Geospatial Data Science

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Working Experiences

07/18   **Specialist Research Technician**   WorldPop, University of Southampton
Population Modelling for LMICs in the lack of complete census. Lead modeller for hybrid census estimation in Burkina Faso. Country Engagement Work with Govt agencies. Workshop and Training on Population Estimates with Statistics Office for the DRC, Burkina Faso and Mali.
Methods developed: Hierarchical Bayesian modelling incorporating survey data with geospatial covariates. Random Forest Model for producing high-resolution population estimates. Grid-based Spatial Sampling Design for Household Surveys.

01/17-08/17   **Data Scientist Intern**   UN World Food Program, HQ Rome
mVAM Unit: dedicated to remote data collection on food security.
Research on how to apply Machine Learning for Propensity Score Weighting in Complex Survey Design. Scoping Study on High-Resolution Mapping of Food Security Indicators. Panel Attrition Analysis. Descriptive statistics on CDR data. Support Mission at Mali Country Office (Bamako).

07/16-12/16   **Data Scientist Intern**   Etalab, French Prime Minister's Task Force for OpenData
- *OpenFisca Project*: French Tax and Benefit System Micro-Simulation Software. Coding the law and developing teaching material. Generating a representative Synthetic Population. Tools: Python (Jupyter Notebook).
- *Entrepreneurs d'Intérêt Général Project* : Launching a governmental program for recruiting high-skilled developers on specific short-term projects.

02/15-03/15   **Economist Intern**   INSEE (French National Institute for Statistics)
Micro-simulation model INES. Study on the Marginal Effective Tax Rate.

01/14-05/14   **Research Assistant**   École Normale Supérieure of Cachan
Sociological research project about the lawyer profession.
Method used: Sociological interview

Education

2018-2019   **MSc in Applied GIS and Remote Sensing**   University of Southampton, UK
Dissertation Topic: *Slumness Mapping: an insight comparing survey data and geospatial covariates. A Use Case in Kinshasa, DRC.* With Distinction.

2015-2018   **MSc in Statistics and Economics**
Paris Graduate School of Economics, Statistics and Finance (ENSAE)
Majors: Statistics, Machine Learning, Econometrics, Computational Social Sciences, Public Policy Evaluation. With Distinction.

2014-2015   **"Theory and Empirical Methods in Economics" Graduate Program**
École Normale Supérieure de Cachan and Paris School of Economics
Erasmus: Humboldt (Berlin), Galatasaray (Istanbul). First class honours.

2013 - 2014   **Double Bachelor's Degree in Economics and Sociology**
ENS Cachan, Université Paris-I-Panthéon-Sorbonne
First class honours.

2011 - 2013   **Hypokhâgne and Khâgne B/L**   Lycée Henri-IV, Paris, France
Two-year highly selective classes to prepare for the "Grandes Ecoles".
Majors : literature, philosophy, mathematics, economics and sociology.

Academic Outcomes

Teaching

- Dec 2020: Gridded Population Workshop for Joseph Ki-Zerbo and Norbert Zongo University, Burkina Faso
- July-Aug 2020: R Foundations Course for different Nigerian national agencies
- May 2020: Population Modelling Webinar, GRID3 Webinar Series, LINK
- Nov 2019: Population Modelling Session at the Data Science Nigeria Bootcamp, LINK

Papers

- Small area population estimates using random forest top-down disaggregation: An R tutorial; Leasure DR, **Darin E**, Tatem AJ, 2020. *WorldPop, University of Southampton.* doi:10.5258/SOTON/WP00697, LINK.
- The role of earth observation in an integrated deprived area mapping "system" for low-to-middle income countries, Kuffer, M.; Thomson, D.R.; Boo, G.; Mahabir, R.; Grippa, T.; Vanhuysse, S.; Engstrom, R.; Ndugwa, R.; Makau, J.; **Darin, E**.; de Albuquerque, J.P. and Kabaria, C, *Remote Sensing*, 2020, 12, 982, LINK
- A grid-based sample design framework for household surveys, Boo G; *Darin E*; Thomson DR and Tatem AJ, *Gates Open Research* 2020, 4:13, LINK

Posters

- A grid-based sampling design for household surveys in the absence of actionable sampling frames, Boo G; **Darin E**; Thomson DR and Tatem AJ, *GEOMED 2019*, 2019 LINK
- High-resolution population mapping and estimation in the western part of the Democratic Republic of Congo, **Darin E**; Boo G; Leasure DL and Tatem AJ, *GEOMED 2019*, 2019 LINK

Datasets

- Census disaggregated gridded population estimates for Sierra Leone, version 2.0 (2015), WorldPop and Statistics Sierra Leone, 2021, *University of Southampton*, doi:10.5258/SOTON/WP00714, LINK
- Census-based gridded population estimates for Burkina Faso (2019), version 1.0, WorldPop and Institut National de la Statistique et de la Démographie du Burkina Faso, *WorldPop, University of Southampton*, 2021, LINK
- Modelled gridded population estimates for the Kinshasa, Kongo-Central, Kwango, Kwilu, and Mai-Ndombe provinces in the Democratic Republic of the Congo 2018, version 2.0, Boo G; **Darin E**; Leasure DR; Dooley CA; Chamberlain HR; Lazar AN; Tatem AJ, *WorldPop, University of Southampton*, 2020, LINK

R Package

- wopr: An R package to query the WorldPop Open Population Repository, version 1.0.1, Leasure DR; Bondarenko M; **Darin E**; Tatem AJ, *WorldPop, University of Southampton*, 2020, LINK

Contributions

- Financial Incentives to Work in France between 1998 and 2014, Sicsic M, *Economie et Statistique*, 2020, LINK
- Les taux marginaux effectifs de prélèvement pour les personnes en emploi en France en 2014, Fourcot J and Sicsic M, *Direction des statistiques démographiques et sociales*, 2017, LINK
- Éthique et TIC : A quoi sert l'Ordre des avocats ?, Bastard B; Boigeol A; Bénec'H-Le Roux P; Jamet L and Printz A, *Mission de Recherche Droit et Justice*, 2016, LINK

Awards

- University of Southampton, Faculty of Environmental and Life Sciences Dean's List Award, 2019
- Vice-Chancellor Award for Research Impact, University of Southampton, 2018
- Scholarship Sarah Andrieux for Social and Economics Research (800€), 2017
- Finalist for OpenFisca of the Open Government Partnership Hackathon (Paris Summit 2016)
- Four-year scholarship at the École Normale supérieure de Cachan (4x15,600€), 2015