

# Curriculum Vitae - Alex Rutherford

## ***Personal***

British Citizen  
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## ***Professional Experience***

**Public Policy Research Manager**  
**Facebook, Menlo Park, CA, USA**

**(1/17-)**

- *Data science projects for social good.*
- *Collaborations across product, communications, data science and policy teams.*
- *Completed engineering and data science onboarding.*

**Research Scientist Consultant**  
**UNICEF Office of Innovation, New York, NY, USA**

**(9/15-12/17)**

- *Applied research analysing and processing social media, mobility and weather data.*
- *Worked closely on small team of developers and researchers using Microsoft Azure, mongoDB and pySpark.*
- *Technical collaborations with Google and IBM.*
- *Country office work in Brazil.*

**Data Scientist Consultant**  
**United Nations Global Pulse, Executive Office of Secretary General, New York, NY, USA**

**(9/13-9/15)**

- *Execution of big data projects for organisations including UN Population Fund and Gates Foundation.*
- *Used Python data science stack on AWS to analyse large volumes of Twitter from DataSift.*
- *Production of policy briefs, supervision of interns.*
- *Speaking engagements at KDD, Data4Good Exchange.*
- *Country office work in Mexico and Jordan.*
- *Collaborations with MIT, Cambridge University and NYU.*

**Postdoctoral Researcher**  
**Social Computing and Artificial Intelligence Laboratory, Masdar Institute, Abu Dhabi, UAE**

**(4/11-9/13)**

- *Computational social science research into social networks and spatial analysis.*
- *Several high profile publications including Proceedings of National Academy of Sciences.*
- *Presentation of work at international conferences.*
- *Created and taught graduate level class on data analysis.*

**Postdoctoral Researcher**  
**(10/09-03/11)**  
**New England Complex Systems Institute, Cambridge, MA, USA**

- *Complex systems research into social phenomena including spatial analysis of ethnic violence.*
- *Lecturing in professional workshop on complex systems.*

## **Education**

**Standard Arabic Regular Course (Levels 1-4), University of Damascus, Syria**

11/08-6/09

**Physics PhD, University College London, UK**

10/05-10/08

**Masters of Physics, University of Warwick**

**(1st Class Honours)**

10/00-06/04

## **Computer Skills**

- **Numerical Programming:** Python (SciPy, matplotlib, NumPy, pandas), C++ (STL, Boost), R, Spark
- **Web Programming:** Javascript, jQuery
- **Databases:** MySQL, MongoDB, Presto, Hive
- **Scripting and Visualisation Tools:** GIMP, OpenGL, ImageMagick, D3, LaTeX and shell scripting.

## **Languages**

- **Modern Standard Arabic :** Advanced
- **Syrian/Gulf Arabic Dialects :** Conversational
- **Spanish :** Advanced

## **Additional Experience and Achievements**

- Departmental award for prompt submission of PhD thesis
- Independent travel across Europe, South America, Africa and Middle East.
- Secretary of Management Committee, CARILA Latin America Welfare Group (2005-2008)
- Engineering for Change, Expert Advisory Board Member (2016-)

## **Workshops and Training**

- Engineering Bootcamp, Facebook (2017)
- Datacamp, Facebook (2017)
- Spark Summit East, AMPLab (2015)
- New England Complex Systems Institute Winter School, Massachusetts Institute of Technology (2008)
- Computational Chemistry Using High Performance Computing, CCLRC Daresbury Laboratory (2005)