Federico M. **Barabas**

Data scientist

Stockholm, Sweden

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Skills

Programming	Python (numpy, pandas, scikit-learn, matplotlib, seaborn), Java, SQL, Linux, Git.
Statistics	Significance, hypothesis testing, life-table analysis, supervised and unsupervised learning.

Experience

Natural Cycles   *Stockholm, Sweden*
Data scientist health   *2018 - PRESENT*
- Large-scale data analysis for groundbreaking research on women's health
- User behaviour modelling. Statistics: survival history analysis, life-tables
- Communication of research results to broad audiences (medical conferences, internal or general public)
- KPI tracking
- Help team recruitment and localization, translations for spanish

Advanced Optical Bio-Imaging Lab, SciLifeLab   *Stockholm, Sweden*
Postdoc researcher   *2017 - 2018*
- Building and automation programming of a next-generation microscope for biological samples.
- Image data analysis and visualization
- Advising and teaching of Master students.

Applied NanoPhysics Group, Bionanosciences Research Center   *Buenos Aires, Argentina*
PhD candidate   *2012 - 2017*
- Designed, building and programming of a state-of-the-art microscope for biological samples.
  - Software description published in Review of Scientific Instruments (2016).
  - Code repository: github.com/fedebarabas/tormenta.
- Headed the development of an image analysis tool to automatically quantify the presence of periodical structures. It enabled the community to understand mechanisms of neuron degeneration, as published in Scientific Reports (2018).
  - Software description published in Scientific Reports (2017).
  - Code repository: github.com/fedebarabas/ringfinder.

Education

Buenos Aires University   *Buenos Aires, Argentina*
PhD in Physical Sciences   *2012 - 2017*
Buenos Aires University   *Buenos Aires, Argentina*
Licenciate in Physical Sciences   *2006 - 2012*

Courses

Stanford University   *www.coursera.org*
Machine Learning Course   *Nov 2017 - Jan 2018*

Teaching

Physics Dept., Buenos Aires University   *Buenos Aires, Argentina*
Graduated advanced laboratory teaching assistant   *2015 - 2017*
Science and Technology School, San Martín National University   *Buenos Aires, Argentina*
Graduated teaching assistant   *2012 - 2013*

Management

Optical Society of America Student Chapter   *Buenos Aires University*

President   *2015 - 2017*

- Doubled the number of active members through the organization of recruitment activities.
- Wrote winning grant applications that led to a 50% growth in the Chapter resources.
- Launched a new activity where young researchers presented their work to spark collaborations and inspire students into optics.

Additional information

Languages   Spanish (native), English (fluent), Swedish (basic).

Tech interests   Machine learning, deep learning, artificial intelligence, open source projects, open data, open hardware, data visualization, data journalism.

Other interests   bike fixing and touring, space and astronomy, /r/dataisbeautiful/, /r/MapPorn, Seinfeld.