# **CURRICULUM VITAE**

# EMANUELE LUCREZIA

PhD Student in Modeling and Data Science

## **CONTACTS:**

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ADDRESS:

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## **DIGITALS SKILLS:**

- Python
- Matlab
- F
- Maple
- Microsoft Office

## LANGUAGES:

- Italian: Native

- English: working proficiency

German: BasicPortuguese: Basic

## **WORK EXPERIENCE**

## Università di Torino - PhD Student

Nov 2019 - Now

Modeling and Data Science

Topics: stochastic processes / Optimal Stopping and Failure Detection

## Xpack s.r.l., Bologna – Professionalising Apprenticeship

Jun 2019 - Aug 2019

Area: mechanics / calculus and simulation

### Istituto Aldo Moro, Rivarolo C.se – Substitute Teacher

Jan 2019 – Jun 2019

Teaching informatics, first class students (14/15 yrs).

- \* In laboratory: Microsoft Office
- \* In class: programming fundamentals.

## Forschungzentrum, Juelich - Research Assistant

May 2017 - Nov 2018

Affiliation: Institute of Neuroscience and Medicine (INM-6), Institute for Advanced Simulation (IAS-6) and JARA BRAIN Institute I.

Collaboration: Institut de Neurosciences de la Timone, Marseille, France.

- \* Applied probability and statistics to experimental neuronal data
- \* Development and implementation of statistical algorithms (python)
- \* Tutoring at:
  - "Advanced Neural Data Analysis Course" (ANDA 2018), Juelich-Barmen
- RWTH Aachen University, (Germany) "Introduction to Computational

Neuroscience"

## Forschungzentrum, Juelich – Assistant Student

Jun 2016 - Apr 2017

This work was performed in the framework of a research agreement between the Department of Mathematics of the University of Turin and the research center of Juelich, Forschungszentrum.

- \* Master Thesis: "Rate Latency Ordering in Multi-Dimensional Point Processes, an Application to Neuroscience"
- \* Course: Advanced Neural Data Analysis Course (ANDA 2017), Juelich-Barmen

## **EDUCATION**

## Università di Torino – Master Degree

Oct 2014 - Apr 2017

- Thesis title: "Rate Latency Ordering in Multi Dimensional Point Processes, an Application to Neuroscience".
- Grade: 110/110 cum Laude

## Università di Torino – Bachelor Degree

Oct 2010 - Apr 2014

• Thesis title: "Resolvability of Polynomial Equations and Galois Theory".

• Grade: 96/110

Liceo Scientifico A. Gramsci, Ivrea – Secondary High School

Set 2005 – Jun 2010

• Grade: 78/100

**Other Courses** 

- German Course: Sprachenateiler Berlin, Berlin 24/09/2018–05/10/2018,
- English Course: MalvernHouseDublin, Dublin 06/2014-07/2014, Ireland

## Online courses:

\* Cryptography I by Stanford University on Coursera. Certificate earned on October 2019 \* Introduction to TCP/IP by Yonsei University on Coursera. Certificate on May 9, 2019 \* Advanced Data Science with IBM, a 4-course specialization by IBM on Coursera. Specialization Certificate earned on May 23, 2019 \* Machine Learning by Stanford University on Coursera. On February 16, 2019

## **Pubblications:**

[Ito, J., Lucrezia, E., Palm, G., & Grün, S. (2019). Detection and evaluation of bursts in terms of novelty and surprise. Math. Biosci. Eng, 16, 6990-7008.] doi: 10.3934/mbe.2019351

## Poster:

[Rate Latency Patterns Across Neuronal Populations Specific to Behavior] <a href="https://juser.fz-juelich.de/record/849801">https://juser.fz-juelich.de/record/849801</a>

## Website:

https://manulz3.github.io/

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