# Giorgio Giannone

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DTU, Copenhagen, Denmark

June 2020 - Present

Sept 2016 - Nov 2018

I am broadly interested in **Probabilistic Machine Learning**, Geometry and Perception, with a focus on **Deep Generative Modelling**. Curious about Probabilistic Agents and Causal Inference.

### Education

### PhD, Statistical Machine Learning

• Supervisor: Ole Winther; Co-supervisor: Søren Hauberg

• Few-Shot Generative Models

### Master's Degree, Data Science

• Excellence Path & Summa cum Laude

• Thesis: Multimodal Learning for Scene Understanding

• Researched on Semantic Segmentation and Depth estimation

### Master's Degree, Mechanical Engineering

• Summa cum Laude

• Thesis: Bubble Dynamics in Turbulent Shear Flows

o Post-processed a DNS to characterize Cavitation Models

# Bachelor's Degree, Mechanical Engineering

• Thesis: Rapid prototyping of metallic manufacturing

• Analysis of the state of the art regarding rapid prototyping techniques

Sapienza University, Rome, Italy Sept 2014 - Jan 2017

Sapienza University, Rome, Italy

Sapienza University, Rome, Italy

# Experience

# Research Engineer, NNAISENSE

Structured Latent Variable Models

• Research in Representation Learning and Perception

### Machine Learning Engineer, Pi Campus

NLP for industrial applications

Intern, argmax.ai, Data:Lab

Probabilistic Models for Perception

• Prototyped a library for generative models

# Research Intern, Naver Labs Europe

Computer Vision and Deep Learning for Scene Understanding

• Developed a research paper and a patent

### Intern, ViDA Lab

Analysis of Text Datasets based on Entities Retrieval

• Built an interactive tool to investigate 10M documents

### Co-Founder, SecretAIry (formerly GAiA)

Chatbots to enhance Workplace Communication

 $\circ\,$  Selected among 100+ startups to participate in the EnLabs Incubator

Lugano, Switzerland

Sept 2009 - May 2014

Jan 2019 - Jan 2020

Rome, Italy

Oct 2018 - Dec 2018

# Munich, Germany

Sept 2018 - Oct 2018

Grenoble, France

Feb 2018 - Aug 2018

New York University, NY, USA Sept 2017 - Jan 2018

Rome, Italy

July 2017 - Jan 2019

# **Publications & Research Projects**

No Representation without Transformation (extended-version)  Giannone, Saremi, Masci, Osendorfer	under-review 2020
Input-filtering NeuralODEs for spiking data Giannone, Anoosheh, Quaglino, D'Oro, Masci, Gallieri	arXiv 2020
$\mathcal{T}_{VAE}$ - No Representation without Transformation Giannone, Masci, Osendorfer	NeurIPS-W 2019
Learning Common Representation from RGB and Depth Images Giannone, Chidlovskii	CVPR-W 2019

### Conferences & Summer Schools

**EEML 2020** Krakov, Poland

July 2020 Deep Learning and Reinforcement Learning

RegML 2020 Genova, Italy

July 2020 Regularization Methods for Machine Learning

Vancouver, Canada NeurIPS 2019

Dec 2019 Workshop presentations - BDL & PGR

**CVPR 2019** Long Beach, CA, USA

Jun 2019 Workshop presentation - Multimodal Learning and Applications

NeurIPS 2018 Montreal, Canada

Dec 2018 Student Volunteer

**Zurich Summer School** ETH, Zurich, Switzerland

Aug 2018 Uncertainty Quantification for PDEs

Deep Learning Summer Program

Tsinghua University, Beijing, China Jul 2018 - Aug 2018

Participation Grant, 12% acceptance rate

Inria, Grenoble, France **PAISS Summer School** 

Jul 2018 Participation Grant and Volunteer

#### **Awards**

Participa	ation G	rant, Perception	on as Generati	ve Reasoning	Workshop	NeurIPS 2019
-	c					Oat 2010

Free conference registration Oct 2019

Participation Grant, Pi School Rome, Italy

Oct 2018 Full tuition covered to participate in the School of Artificial Intelligence

3% acceptance rate

Certificate of Award, Tsinghua University Beijing, China

Aug 2018 Prize for outstanding accomplishments (Top 6)

Grenoble, France Certificate of Achievement, Naver Labs Europe

Jul 2018 Prize for the best internship performance

1st Pick, Excellence Path, Master's Degree, Data Science Rome, Italy

Mar 2018

Admission based on the first year's academic achievements Participation in activities at the School for Advanced Studies

# 1st Place, Global AI Hackathon, Italian Edition

Rome, Italy Jun 2017

Our team built GAiA, a working assistant chatbot

We won three prizes: Challenge Microsoft, People's Choice, Product Market Fit

## **Skills**

### Languages

• Python (proficient); R, Matlab (good knowledge); C, Java, JavaScript (basic knowledge)

#### Tools

• AWS, CUDA, CVX, Git, Linux, MongoDB, MySQL, NLTK, OpenCV, PyTorch, TensorFlow

## Miscellaneous

## Online Certified Education

- Machine Learning (Oct 2016), Deep Learning (Aug 2017) [Coursera]
- Computer Science (Nov 2016), Artificial Intelligence (Apr 2017) [edX]
- Self-Driving Cars Nanodegree, 1st term (Dec 2017) [Udacity]

### **Talks**

Intro to Deep Learning - 2 hour talk (invited by Professor Aris Anagnostopoulos) during the last lecture
of the Algorithmic Methods of Data Mining course, Sapienza University of Rome, Dec 2018.

#### Associations

- Italian Association for Machine Learning (IAML)
- ContinualAI