

Filippo Corponi

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Education

University of Edinburgh

PH.D. IN [BIOMEDICAL ARTIFICIAL INTELLIGENCE](#)

Edinburgh, Scotland
Sep. 2021 - Expected Aug. 2024

- Fully funded by UKRI.
- Supervised by Dr. Antonio Vergari.
- Research topics: 1) digital phenotyping; 2) machine learning for mental healthcare.

University of Edinburgh

M.SC. BY RESEARCH IN [BIOMEDICAL ARTIFICIAL INTELLIGENCE](#) (WITH DISTINCTION, 1ST CLASS)

Edinburgh, Scotland
Sep. 2020 - Aug. 2021

- Fully funded by UKRI.
- Supervised by Dr. Peggy Series.

Scuola Superiore Sant'Anna

DIPLOMA IN MEDICAL SCIENCE (WITH DISTINCTION)

Pisa, Italy
Aug. 2010 - Jun. 2017

University of Pisa

MEDICAL DEGREE (WITH DISTINCTION)

Pisa, Italy
Sep. 2009 - Oct. 2015

Experience

NHS Lothian, South West Edinburgh CMHT

LOCUM CONSULTANT IN GENERAL ADULT PSYCHIATRY

Edinburgh
May 2022 - Current

Clinic Hospital of Barcelona, University of Barcelona

DATA SCIENTIST

Remote
Jan. 2022 - Jan. 2023

- Led the machine learning development in Python and PyTorch to identify digital biomarkers in mood disorders from multi-variate wearable data. The project was awarded the [Baszucki Brain Research Fund Grant 2022](#) from the Milken Institute.
- Preliminary results on multi-item psychometric scales regression using BiLSTM and Transformers has been accepted to NeurIPS 2022 Workshop on [Learning from Time Series for Health](#). [poster]

King's College London, Institute of Psychiatry, Psychology & Neuroscience

VISITING RESEARCH ASSISTANT

London, Uk
May. 2020 - Oct. 2020

- Supervised by Prof. Daniel Stahl
- Research topics: 1) medical statistics and statistical learning; 2) machine learning for mental healthcare

Clinic Hospital of Barcelona, University of Barcelona

PSYCHIATRY TRAINEE

Barcelona, Spain
Nov. 2018 - Oct. 2019

- Supervised by Prof. Eduard Vieta
- 6-month rotation in bipolar and depressive disorders outpatient psychiatric clinic; 6-month rotation in bipolar and depressive disorders inpatient psychiatric clinic

- Supervised by Prof. Alessandro Serretti
- 3-month rotation in Internal Medicine inpatient unit
- 1-month rotation in NeuroRadiology unit
- 1-month rotation in General Neurology inpatient unit
- 1-month rotation in Child and Adolescence inpatient psychiatric unit
- 12-month rotation in General Adult inpatient psychiatric unit
- 18-month rotation in General Adult outpatient psychiatric clinic

Publications

* denotes equal contributions. Please find my complete list of publications on [Google Scholar](#).

- 2023 Wearable data from subjects playing Super Mario, sitting university exams, or performing physical exercise help detect acute mood episodes via self-supervised learning [URL](#)
F. Corponi, B. M. Li, G. Anmella, C. Valenzuela-Pascual, A. Mas, I. Pacchiarotti, M. Valentí, I. Grande, A. Benabarre, M. Garriga, E. Vieta, A. H. Young, S. M. Lawrie, H. C. Whalley, D. Hidalgo-Mazzei, A. Vergari
arXiv
- 2023 Automated mood disorder symptoms monitoring from multivariate time-series sensory data: Getting the full picture beyond a single number [URL](#)
F. Corponi, B. M. Li, G. Anmella, A. Mas, M. Sanabra, E. Vieta, INTREPID Group, S. M. Lawrie, H. C. Whalley, D. Hidalgo-Mazzei, A. Vergari
medRxiv
- 2023 Exploring Digital Biomarkers of Illness Activity in Mood Episodes: Hypotheses Generating and Model Development Study [URL](#)
G. Anmella *, **F. Corponi** *, B. M. Li *, A. Mas, M. Sanabra, I. Pacchiarotti, M. Valentí, I. Grande, A. Benabarre, A. Giménez-Palomo, M. Garriga, I. Agasi, A. Bastidas, M. Cavero, T. Fernández-Plaza, N. Arbelo, M. Bioque, C. García-Rizo, N. Verdolini, S. Madero, A. Murru, S. Amoretti, A. Martínez-Aran, V. Ruiz, G. Fico, M. De Prisco, V. Oliva, A. Solanes, J. Radua, L. Samalin, J. Radua, A. H. Young, E. Vieta, A. Vergari, D. Hidalgo-Mazzei
JMIR mHealth and uHealth
- 2023 Definition of early age at onset in bipolar disorder according to distinctive neurodevelopmental pathways: insights from the FACE-BD study [URL](#)
F. Corponi, A. Lefrere, M. Leboyer, F. Bellivier, O. Godin, J. Loftus, P. Courtet, C. Dubertret, E. Haffen, P.M. Llorca, and P. Roux, M. Polosan, R. Schwan, L. Samalin, E. Olié, B. Etain, P. Seriès, R. Belzeaux
Psychological Medicine
- 2022 Inferring mood disorder symptoms from multivariate time-series sensory data [URL](#)
B. M. Li, **F. Corponi***, G. Anmella, A. Mas, M. Sanabra, D. Hidalgo-Mazzei, A. Vergari
NeurIPS Workshop on Learning from Time Series for Health
- 2022 Antidepressants: indications, contraindications, interactions, and side effects [URL](#)
F. Corponi, C. Fabbri, A. Serretti
Advances in Pharmacology
- 2020 Symptom networks in acute depression across bipolar and major depressive disorders: A network analysis on a large, international, observational study [URL](#)
F. Corponi *, G. Anmella *, N. Verdolini, I. Pacchiarotti, L. Samalin, D. Popovic, J.M. Azorin, J. Angst, C.L. Bowden, S. Mosolov, A.H. Young, G. Perugi, E. Vieta, A. Murru
European Neuropsychopharmacology
- 2020 Deconstructing major depressive episodes across unipolar and bipolar depression by severity and duration: a cross-diagnostic cluster analysis on a large, international, observational study [URL](#)
F. Corponi, G. Anmella, I. Pacchiarotti, L. Samalin, N. Verdolini, D. Popovic, J.M. Azorin, J. Angst, C.L. Bowden, S. Mosolov, A.H. Young, G. Perugi, E. Vieta, A. Murru
Translational psychiatry

Teaching

2022 Spring Tutor & Demonstrator for Machine Learning in Signal Processing (MSc).
University of Edinburgh, School of Engineering

[PGEE11175](#)

Skills

Programing Python, PyTorch, TensorFlow, Keras, R
Languages English (C2), Italian (Native)
Document Creation Microsoft Office Suite, LaTeX, Markdown

Reference

Dr. Antonio Vergari Reader, School of Informatics, University of Edinburgh
Dr. Sharon Smith Clinical Director, NHS Lothian

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