

Andrea Corrigo, Ph.D., Software Engineer

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Education

(2018-2022) University of Cagliari, **Ph.D. in Machine Learning** with a Thesis entitled: Artificial Intelligence Approaches Applied to The Financial Forecasting Domain

(2016-2018) University of Cagliari, **Master of Science in Computer Science** with a Thesis entitled: A Cross-Platform Application About Precision Farming. 110/110 GPA 29.2/30

(2013-2016) University of Cagliari, **Bachelor of Science in Computer Science** with a Thesis entitled: An Application for Logistic Platform Container Management

Work Experience

(2021-2022) Visioscientiae Srl. **External consultant and Software Engineer at Spindex Spa.**

- Developed microservices in Java with Spring for SIAE.
- Developed Python scripts for Intesa San Paolo Spa Bank.

(2017-2022) University of Cagliari. **Researcher & Software Engineer.**

- Designed and developed deep learning and reinforcement learning algorithms for financial forecasting as a main thread of my Ph.D. thesis.
- Designed and developed a brand-new framework called Hawkeye, combining output data coming from neural networks with front-end technologies following the recent trend of interpretable AI.
- Built a real-time trading framework, combining multiple technologies in a pipeline such as: NodeJS, Js, Php, Python and C#.

(2015 – 2018) Microsoft Italy, **Team Leader for Sardinia for Microsoft Student Partner.**

- Main organizer of the following events at my university: Academic Opening Meeting (2015), Global Azure Bootcamp (2015), Microsoft Azure for Dreamspark Academic Tour (2016), Game Dev Tour (2016)
- I studied and offered technical support to students for the following technologies: Microsoft Azure, Microsoft Universal Windows Platform App, Windows and Windows Phone 8/10 SDK, Microsoft Dreamspark.

(2016) CICT, **Internship.**

- Developed in-house internal software for real-time monitoring of industrial vehicles.

(2013 – 2022) **Freelancer**

- Provided software consultancy for several clients and provided customized ad-hoc software solutions and websites for their companies.

Projects

As a software engineer and programming enthusiast, I often launch new projects to experiment with new technologies/frameworks and try to solve small everyday problems. More details are available on my website and my GitHub page.

Ayco is a free app for Android and iOS that simplify ordering sushi from “all you can eat” restaurants.

- Simple and fast, Ayco allow users to consult the menu of more than 20 restaurants located at Cagliari. Many more to come
- Ayco allows you to save restaurants, menus, and favorite dishes offline.
- Powered by Firebase, Ayco allows real-time order synchronization between friends.

Unicapp is a free app for Android and iOS for University Students.

- With Unicapp, students can view their university records, fees, GPA, and much more.
- Currently it only supports *UniCA*, but more than 20 Italian universities are on the way.
- Unicapp has more than 9k unique users, with more than 30,000 daily requests.

Publications

Published 6 peer-reviewed papers, with an **h-index** of 4 and 125 **citations**. More details and the full list of publications are available on **Google Scholar** at: <https://scholar.andreacorriga.com>.

1. Barra, S., Carta, S., Corrigo, A., Podda, A. S., Recupero, D.R. “**Deep Learning and Time Series-to-Image Encoding for Financial Forecasting**” (2020) Published in IEEE/CAA Journal of Automatica Sinica, 7 (3), art. no. 9080613, pp. 683-692.
2. Carta, S., Corrigo, A., Ferreira, A., Podda, A.S., Recupero, D.R. “**A multi-layer and multi-ensemble stock trader using deep learning and deep reinforcement learning**” (2020) Published in Applied Intelligence
3. Carta, S., Consoli, S., Corrigo, A., Dapiaggi, R., Podda, A.S., Recupero, D.R. “**HawkEye: a Visual Framework for Agile Cross-Validation of Deep Learning Approaches in Financial Forecasting**” (2020) to appear in ICFNDS '20 Proceedings - ACM ICPS
4. Carta, S., Corrigo, A., Ferreira, A., Recupero, D.R., Saia, R. “**A holistic auto-configurable ensemble machine learning strategy for financial trading**” (2019) Published in Computation, 7 (4), pp. 1-25.
5. Carta, S., Corrigo, A., Mulas, R., Recupero, D.R., Saia, R. “**A supervised multi-class multi-label word embeddings approach for toxic comment classification**” (2019) Published in Proceedings of IC3K 2019, 1, pp. 105-112.
6. Corrigo, A., Cusimano, S., Mallocci, F.M., Marchesi, L., Recupero, D.R. “**Leveraging cognitive computing for gender and emotion detection**” (2018) Published in CEUR Workshop Proceedings, 2111, pp. 47-56.

Professional Service

Technical Program Committee member for the following conferences:

- The first international Workshop on Artificial Intelligence methods for Smart Cities (AISC 2021)
- The 22nd IEE International Conference on High Performance Computing and Communications (HPCC-2020)
- The second International Workshop on Biometrics-as-a-Service (IWBAAS 2019)
- The 7th International Conference on Smart City and Informatization (ISCI 2019)