

# Andrea Corrigan, Ph.D.

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Phone: +39 345 62 29 455 - Email: [me@andreacorrigan.com](mailto:me@andreacorrigan.com)

Website: <https://andreacorrigan.com> - Website: <https://strifelab.com> - GitHub: <https://github.com/AsoStrife>

**Skills Keywords Summary:** C, C++, C#, PHP, Java, Javascript, Node, Python, HTML5, CSS3 | Codeigniter, Springboot, Framework7, Vue, jQuery, Vite, Capacitor, Electron, Bootstrap, Tailwind, Flask, FastAPI, Strapi | Mysql, MongoDB | Sass, Less, Machine Learning, Reinforcement Learning, Generative AI, Keras, Tensorflow, Scikit-learn, Pandas, Numpy | Microsoft Azure, Amazon AWS, Google Cloud Platform, Firebase.

## Work Experience

(2023-current) *TheCloudAlchemist Srl*

- **Partner & Product Manager**
  - Directed the development of the company's flagship product, overseeing task management and scheduling in collaboration with the development team. Worked closely with the CEO and COO to contribute to daily decision-making processes and strategic choices in sales and marketing.

(2021-current) *Visioscientiae Srl*

- **Partner & COO**
  - Contributed to daily decision-making and client interactions alongside the CEO. Oversaw development projects, ensuring both timely delivery and high quality. Provided support to various development teams, actively managing task scheduling. Played a key role **in architecting software solutions** and **cloud infrastructures** tailored to client specifications.
- **Product & Delivery Manager**
  - Led an internal company project, taking full responsibility for the development of the software architecture. Designed and implemented a product leveraging artificial intelligence, including generative AI and open-source LLMs, to create virtual assistants capable of performing documents searches and database querying with high precision and efficiency starting from a natural language prompt.
- **Full Stack Software Engineer**
  - Developed **RESTful microservices** utilizing various technologies and frameworks for diverse clients and multinational companies. Additionally, led the development of **front-end interfaces**. Employed **containerization tools** and played a key role **in architecting cloud infrastructures** tailored to client specifications.

(2013 - current) *Strifelab*

- **Founder & Full Stack Software Engineer**
  - Provided software consultancy for several clients and provided customized ad-hoc software solutions and websites for their companies.

(2018-2022) *University of Cagliari*

- **Ph.D. Student & 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 to connect trading signal from deep learning algorithms with the broker.

(2015 - 2018) *Microsoft Italy*

- **Sardinian Team Leader for Microsoft Student Partner program**
  - Main organizer and speaker at the following university event:
    - Academic Opening Meeting (2015)
    - Global Azure Bootcamp (2015)
    - Microsoft Azure for Dreamspark Academic Tour (2016)
    - Game Dev Tour (2016)

- Provided technical support to the 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 in Javascript.

## Education & Academic Career

(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.

## Publications

Published 6 peer-reviewed papers, with an **h-index** of 5 and +400 **citations** (2024). 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

Participated as Technical Program Committee member for the following conferences:

- The first international Workshop on Artificial Intelligence methods for Smart Cities (AISC 2021)
- The 22<sup>nd</sup> 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)