Andrea Corriga, Ph.D.

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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, RAG, TAG, LLMs, Keras, Tensorflow, Scikit-learn, Pandas, Numpy | Microsoft Azure, Amazon AWS, Google Cloud Platform, Firebase.

Work Experience

(2021-current) Visioscientiae Srl

Partner & COO

- o Collaborated with the CEO in strategic and **operational decision-making**, as well as in key client interactions to ensure alignment between **business objectives** and **delivery capabilities**.
- Coordinated the work of a cross-functional employees of twenty, spanning software development,
 DevOps, and product management. Took direct ownership of task planning and execution, ensuring timely delivery across multiple projects.
- o Designed of tailored software solutions and cloud architectures, while reviewing technical estimates and producing accurate economic proposals aligned with project scope and resource planning.

• Delivery Manager & AI Engineer

- o Managed several development projects, ensuring both timely delivery and high-quality assurance.
- Designed and implemented a product leveraging artificial intelligence, including generative AI
 and open-source LLMs, to create conversational agents capable of performing documents searches
 leveraging RAG technologies and database querying using TAG technologies with high precision
 and efficiency starting from a natural language prompt.
- Led projects involving AI-based deep learning for classification and computer vision tasks, contributing to the development and deployment of robust image recognition solutions.

• Full Stack Software Engineer

Developed end-to-end software solutions, contributing to both the back-end and front-end components to ensure scalability, maintainability, and alignment with technical and business requirements.

- o **Back-end:** Developed RESTful microservices primarily using Node.js, with a strong emphasis on code quality and system performance. Solutions often involved the use of relational and non-relational databases, JWT-based authentication, asynchronous processing, and real-time communication via WebSockets.
- Front-end: Built responsive, mobile-first, and user-centric front-end interfaces using modern frameworks such as Vue.js. Employed a component-based architecture and integrated UI libraries including Bootstrap and Tailwind CSS to ensure consistency, reusability, and an optimal user experience across devices.

(2023-2025) TheCloudAlchemist Srl

• Partner & Product Manager

Directed the development of the company's flagship product, a cloud cost monitoring platform designed to optimize and control expenses across services such as **AWS** and **Azure**. A key feature is its integration with generative **AI conversational agents**, enabling users to interact with the system in natural language to generate reports, extract insights, and obtain actionable recommendations in real time.

(2018-2022) University of Cagliari

• Ph.D. Student - AI & Data Engineer

- o 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.

o 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)
 - o 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
 - o 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 7 peer-reviewed papers, with an **h-index** of 5 and +500 **citations** (2025). More details and the full list of publications are available on **Google Scholar** at: https://scholar.andreacorriga.com.

- Barra, S., Carta, S., Corriga, 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., Corriga, 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., Corriga, 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., Corriga, 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., Corriga, 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. Corriga, A., Cusimano, S., Malloci, 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.
- 7. Carta, S.M., Chessa, S., Contu, G., Corriga, A., Deidda, A., Fenu, G., Frigau, L., Giuliani, A., Grassi, L., Manca, M.M., Marras, M., Mola, F., Mossa, B., Mura, P., Ortu, M., Piano, L., Pisano, S., Pisu, A., Podda, A.S., Pompianu, L., Seu, S., Tiddia, S.G. "LIMBA: An Open-Source Framework for the Preservation and Valorization of Low-Resource Languages using Generative Models" (2025) arXiv preprint arXiv:2411.13453

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 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)