



Curriculum Vitae: Armando Vieira, PhD

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Professional Summary

An accomplished Data Science Director with extensive experience leading complex data initiatives and building high-performing data science teams. My focus is on leveraging advanced AI technologies to solve business challenges, drive strategic decision-making, and create a significant impact. With a strong background in data-driven leadership while being fully hands-on, I specialize in aligning scientific expertise with business strategy to ensure that data science initiatives deliver measurable business value.

I have co-founded two startups and have a strong entrepreneurial spirit, which allows me to be both a visionary and an executor. I am also an author and have had the privilege of speaking at TEDx and several major conferences, where I've shared my passion for the transformative power of AI.

Key Skills and Competencies

- **Leadership and Strategic Vision:** Proven success in setting data strategy, managing teams, and ensuring alignment between data initiatives and business objectives.
- **Team Building and Mentoring:** Extensive experience in hiring, mentoring, and developing high-performing data science teams.
- **AI and Machine Learning Expertise:** In-depth experience with deep learning, Bayesian statistics, predictive modeling, and AI bias mitigation.
- **Business Acumen and Product Development:** Skilled in translating business goals into data-driven initiatives that directly impact the bottom line. Expertise in working with cross-functional teams to bring data products to market.
- **Communication and Stakeholder Management:** Effective communicator able to articulate complex technical solutions to non-technical stakeholders, driving buy-in and ensuring alignment.

Programming and Software Skills

- **Languages & Tools:** Advanced Python, R, Matlab, SQL, Keras, TensorFlow, Amazon Sagemaker
- **Expertise Areas:** Prompting engineering, Deep Learning, Bayesian Networks
- **Domain Knowledge:** Statistical Analysis, Complex Systems, Pattern Recognition

Selected Professional Experience

Medical - CDS

Sep 2023 - Present

- Leading technology strategy to revolutionize healthcare through AI-driven solutions.
- Developing AI systems to alleviate administrative burdens, improve operational efficiencies, and enhance patient care.
- Ensuring alignment between technology initiatives and business goals while driving innovation in healthcare.

Vamstar - Senior Data Scientist**Jul 2022 - Aug 2023**

- Developed algorithms for price prediction of pharmaceutical products to optimize supply chain decisions.
- Contributed to the data science strategy, focusing on improving model accuracy and ensuring compliance with industry standards and worked closely with cross-functional teams to develop AI-driven solutions for the pharmaceutical industry.

Ydata.ai - Consultant AI**Dec 2021 - Jun 2022**

- Provided consulting services for implementation of generative models for complex time-series data, helping clients harness the power of synthetic data and privacy-enhancing technologies.
- Collaborated with data teams to design and develop innovative machine learning models, with a focus on mitigating bias and enhancing data quality.

Hazy.com - Head of Data Science**Jan 2019 - Nov 2021**

- Led a data science team in developing and deploying synthetic data generation models, enhancing data privacy while mitigating AI bias.
- Defined the strategic direction for AI capabilities and aligned technical work with business goals to ensure high ROI. Oversaw the inclusion of Hazy in the Crunchbase list of the most promising AI companies in 2022.

Contextvision.se - Deep Learning Specialist**2016 - 2017**

- Collaborated in a cross-functional team to apply deep learning algorithms to medical images and videos segmentation with time dependent CNNs, contributing to advancements in healthcare technology.

BUPA Insurance, London - Lead Data Scientist**2015 - 2016**

- Built and led a data science unit, developing innovative data strategies that transformed BUPA Insurance into a data-driven organization. Focus areas included customer experience, risk management, and marketing.

RedZebra Analytics - Chief Data Scientist**2012 - 2015**

- Directed the development of customer behavior prediction tools using banking transactional data, leading to better customer segmentation and marketing alignment.
- Developed and scaled models, contributing to an increase in profitability through predictive accuracy.

**Instituto Superior de Engenharia do Porto (ISEP) - Full Professor of Physics
2000 - 2011**

- Taught undergraduate courses in Physics, contributing to the education of future engineers.
- Assisted in the development of the Biomedical Engineering degree at ISEP in 2007.
- Coordinated and secured funding for 2 National Research Projects from FCT with budget 450 000 Euros.

Education

- **PhD in Theoretical Physics**
University of Coimbra, approved with distinction
- **MSc in Physics & Engineering of Plasmas**
Nuclear Fusion Centre, Lisbon, 17/20
- **BSc in Physics**
Instituto Superior Técnico, Lisbon, 15/20

Key Achievements

- **Public interventions:** Author of the book "Business Applications of Deep Learning" (Apress, 2018). Speaker at TEDx and major data science conferences, including PyData and EARL.
- **Entrepreneurship:** Co-founded two startups (Alea and Medgical), demonstrating a keen ability to innovate and execute in dynamic environments.
- **Publications:** Over 160 publications in refereed international journals and peer-reviewed conference proceedings, with an **h-Index:** of 32 and **i10-Index:** 53.

Training Courses Given

- **Programming with Artificial Intelligence** - Tecnico Mais, IST Lisbon, 2024
- **Artificial Intelligence for Bioinformatics**, Universidade Pompeu Fabra, Master class, 2020.
- **Generative Adversarial Neural Networks (GANs) for Insurance** - Generali, Italy, 2018
- **Retargeting Ad Optimization with LSTMs** - MainAd, Italy, 2017
- **Nuclear Radiations for Operators of Experimental Nuclear Reactors** - ITN Lisboa, 1999

Languages

- **Portuguese** (Native)
- **English** (Fluent)
- **Spanish** (Fluent)
- **French** (Intermediate)

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