

Alessandro Marin, PhD

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[Online CV](#)
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STATEMENT OF QUALIFICATIONS

PhD in Physics with 10+ years of corporate and academic experience in analytics and research. Being proficient in **machine learning**, **data analysis**, **software development**, and **research**, I am excited about leveraging my skills in a role within **data science** and **software development**.

PROFESSIONAL EXPERIENCE

EMPLOYER	Expert Analytics	Oslo, Norway
JOB	Consultant: Python developer at Hafslund-Eco	March 2022 – Present
TASKS	<ul style="list-style-type: none">• Development and maintenance of Python packages on Azure DevOps interfacing various third-party application and systems	
EMPLOYER	University of Oslo	Oslo, Norway
JOB	Senioringeniør/Senior Engineer	December 2018 – January 2022
OUTCOMES	<ul style="list-style-type: none">• Developed a novel machine learning method resulting in two scientific publications• Carried out data analysis and visualization• Developed software to support educational material• Promoted to Senior Engineer in 2020	
EMPLOYER	InterSystems Corporation	Cambridge, MA
JOB	Support Specialist	May 2014 – August 2018
OUTCOMES	<ul style="list-style-type: none">• Provided customer and developer support by solving technical issues (about 450)• Development of applications using back- and front-end technologies• Provided technical leadership to clients for Business Intelligence and Analytics• Administered computational infrastructure and data• Promoted to Support Specialist in 2016	
EMPLOYER	Delft University of Technology	Delft, the Netherlands
JOB	Postdoctoral Scientist	September 2011 – June 2013
OUTCOMES	<ul style="list-style-type: none">• Developed software to model spectroscopic data• Implemented software for laser systems using event-driven programming	
EMPLOYER	Vrije Universiteit	Amsterdam, the Netherlands
JOB	Ph.D. in Biophysics of Photosynthesis	April 2006 – June 2011
OUTCOMES	<ul style="list-style-type: none">• Developed MATLAB software using machine learning for data modeling• Performed analysis of spectroscopic data on high performance servers• Published 6 peer-reviewed publications (4 first author) in academic journals	

PROGRAMMING LANGUAGES AND TOOLS

- **Machine learning** (Python, TensorFlow): NLP, regression, clustering, classification, ensemble methods, time series, web scraping, neural networks
- **Software development**: Python, ShellScript (Bash), Git, Azure DevOps, Docker, Java
- **Application development**: HTML/CSS/Javascript (D3, amCharts, Bootstrap), React, Angular, TypeScript, Django, NodeJS, REST API
- **Python development**: Pandas, Numpy, Matplotlib, SciKit-Learn, NLTK, Seaborn, SciPy, pytest
- **Data analysis and visualization**: Python, MATLAB
- **Databases - NoSQL**: MongoDB, Google Cloud/Firebase, AWS, InterSystems Caché
- **Databases - Relational**: MySQL, PostgreSQL, and SQLite

EDUCATION

STUDY	PhD in Biophysics of Photosynthesis	April 2006 – April 2012
UNIVERSITY	Vrije Universiteit	Amsterdam, the Netherlands
	Research in biophysics of photosynthesis	
STUDY	BSc in Physics, MSc in Applied Physics	September 1999 – November 2005
UNIVERSITY	University of Padova	Padova, Italy
	Karolinska Institute	Stockholm, Sweden
	Bachelor and Master in Physics at University of Padova. Master thesis on image analysis at Karolinska Institutet	
STUDY	Bachelor of Music, Piano	September 2001 – June 2004
INSTITUTION	Conservatory of Music Benedetto Marcello	Venice, Italy

CERTIFICATES

- [MIT Professional Education Program](#): Certificate for the “Data Science: Data to Insights” online course on Data Science and Machine Learning
- [Oracle Certified Associate](#): Java SE 8 Programmer
- [Online courses](#): Certificates (Coursera, Lynda) on machine learning, deep learning, data science
- [Oslo University - Norsk for viderekomende](#): Advanced/Proficient Norwegian, trinn IV / C1-C2

LANGUAGES

Norwegian	Professional working proficiency (Høyere nivå, C1/C2)		
English, Dutch	Full professional proficiency	Italian	Native proficiency
Spanish, French	Limited working proficiency		

SKILLS

- **Troubleshooting**: proficient in using problem solving theory on technical issues
- **Business Intelligence analytics**: provide technical guidance to optimize architecture, performance, and design of BI models and KPI's
- **Teamwork**: launched and supported research projects resulting in 10 academic publications
- **Mentoring and teaching**: mentored a new hire and BSc/MSc students who completed their projects to a high standard. Two years teaching assistant in Applied Informatics
- **Technical writing**: published 6 first-authored academic publications and 12 technical articles for InterSystems' Developer Community forum
- **Communication**: presented 16 oral talks at international conferences

PROGRAMMING PROJECTS

- [Science Education LDA](#) and [PERC_TopicModel](#): Two scientific publications of a novel machine learning method to analyze trends in scientific literature
- [DocOnce](#): Development of software targeting scientific reports and educational material
- [Machine Learning Notebooks](#): Jupyter notebooks with machine learning projects
- [PyPanda](#) and [PyPuma](#): Python applications of computational tools to model biological networks
- [Firebase-React-BoardGameGeek](#), [Firebase-React-Forum](#), [Zero-Waste-Locator](#), [DjangoResume](#), [AWS-React-File-Repo](#): Application development using React, MEAN (MongoDB, Express, Angular CLI, Node.js), Firebase, AWS, Django
- [DeepSeeButtons](#): Gather and analyze system information from InterSystems' data platforms
- [InterSystems](#): Miscellaneous projects involving InterSystems' technology