

LUCA FERRARINI

ASSOCIATE PROFESSOR IN APPLIED INFORMATION TECHNOLOGIES (CIIM)
SOFTWARE ENGINEER, PH.D.

PROFESSIONAL EXPERTISE

Data Science and Analytics
Business Intelligence
Big Data
Project management
Problem management
Software architecture
CCM, CRM
Dynamics 365
Waterfall and Agile frameworks
Programming paradigms
Mathematics, Statistics
Machine Learning
Pattern recognition
Data mining
Research

CERTIFICATIONS

Microsoft MCSE
Data Management and Analytics,
Microsoft T-SQL,
Microsoft MCSA
Data Analytics (ETL and Data Warehouse)
Microsoft Power Platform - Dynamics 365 Core

LANGUAGE AND COMMUNICATION SKILLS

Italian: mother tongue
English: fluent
Dutch: A2 certified
Spanish: A2 certified
Modern Greek: A1 certified
Certified for scientific writing and presentations

PROFESSIONAL AND ACADEMIC EXPERIENCE

Cyprus International Institute of Management - Cyprus
Associate Professor in Applied Information Technologies

September 2021 - ongoing

Description:

As a fulltime associate professor, I am responsible for three courses (36 ECTS), mentoring students, supervising them through their master theses, and carry on state-of-the-art research within specific research areas.

Duties:

- Teach the BI405 course on Database Management and Cloud Computing.
- Teach the AT600 course on Digital Transformation in Business and Organizations.
- Teach the AT800 course on Project Management in Information Technology.
- Supervise students during their master thesis. This includes the initial set up of the project, periodical meetings to monitor their progresses, technical advices, final revisions and marks.
- Carry on research in the area of (big) data engineering and analysis, machine learning and statistical modeling, and software development methodologies.
- Publication of research findings in international peer-reviewed journals and conferences.
- Promoting the image of CIIM through conferences, seminars, and other related activities.
- Contributing to administrative tasks.

Dot.Cy - Customer Relationship Management, Nicosia, Cyprus
Senior Consultant in Data Science and Analytics

September 2017 - ongoing

Description:

Responsible of all data analytics projects for the group. Head of the data analytics unit. Accountable for designing, implementing, and deploying BI solutions for large international organizations. Responsible for collecting business requirements, interact with business analysts, report to top management.

Duties:

- Design, implement and release advanced BI reports using on premise solutions (SQL Server BI suite) and on cloud architectures (mostly on Microsoft Azure Data Analysis suite).
- Design, implement and deploy on cloud data warehouse systems (Azure Data Factory, Azure Data Lakes, Power BI, Power BI Embedded, Azure SQL Data Warehouse, others).
- Design, implement and release chat bot with cognitive awareness. The solutions are based on Microsoft Bot Framework and Azure Cognitive Services.
- Design and implement migrations of Dynamics 365 to Azure cloud solution (use of Data Export Services and Azure SQL DBs)
- Develop machine learning (AI) algorithms for BI insights (e.g. forecast of retail revenue, forecast of customer crossover and up-selling, others). The algorithms are developed in R and in Azure Machine Learning Studio.
- Mentoring new team members of the data science and analytics unit.
- Present our products to customers (both national and international).
- Customer industries in the portfolio: banks, entertainment parks, shipment management companies, governmental, insurance, hospitality.
- Support management and pre-sale department in preparing and presenting POCs.

Doxee - Customer Communication Management, Modena, Italy
Project Manager

January 2014 - August 2017

Description:

Responsible for standard and innovative projects related to corporate software (change management for product-based continuous improvement). Accountable for team management, budget management, communication with stakeholders, risk management. Average range in external team size: 5-10. Average range in effort per project: 200-5000 hours. Average budget range: 18,000-500,000 euro. Additionally, responsible for an internal team of shared resources focused on problem management and roadmap projects.

Duties:

- Coordinating external software suppliers for change management (outsourced by national and international firms).
- Managing enterprise-related projects.
- Managing publicly funded projects (regional, national and international level, i.e., Horizon 2020).
- Interacting with internal and external stakeholders (clients, delivery areas, international technical service area, post-sales area, business developers).
- Designing and implementing Java EE enterprise solutions for CCM.
- Prioritize and address product-related problems with high impact on either IT software provisioning or operations (problem management).
- Coordinating internal teams for roadmap projects.

Institute FIRC of Molecular Oncology, Milan, Italy
Data Scientist and Head of the bioinformatics unit

December 2010 - January 2014

Description:

Responsible for the bioinformatics and data analysis projects to support the research activities of the institute, and head of the corresponding unit. Accountable for the delivery of software solutions, statistical analysis and scientific data reporting.

Duties:

- Coordinating a team of 5 scientific programmers, three co-located and two based in a foreign outsourcing engineering company (based in Bangalore, India).
- Managing projects.
- Interact with stakeholders, identified as the principal investigators of the institute.
- Coordinating (and participating in) the development of scientific software for the analysis of bioinformatics and bioimaging data.
- Reporting progresses to stakeholders in regular monthly meetings.
- Cooperating in the organization of the IT infrastructure to support scientific activities.
- Writing and participating in international research grants.
- Conducting research in the computational field.
- Participating to the local ethical committee as statistician.
- Holding internal courses on programming paradigms and specific programming languages (e.g., R).
- Giving lectures at the University of Milan for the courses held by Prof. E. Dejana.

**AVAILABLE
ON REQUEST**

Reference letters

Dr. F. Admiraal-Behloul

Clinical scientist at Toshiba

Dr. G. Paternostro

PI at The Burnham Institute

Prof. E. Dejana

PI at IFOM

List of publications

20 in international journals

(one of which in Nature), 9

in international conferences,

1 book chapter, 14 abstracts

in international conferences

University marks

also visible on LinkedIn

LKEB Division of Image Processing,
Leiden University Medical Center, The Netherlands

Senior Researcher - External Consultant

March 2008 - December 2010

Description:

I covered different roles during the years, starting from post-doc in structural neuroimaging research, moving on to senior researcher in functional neuroimaging, and concluding as external consultant.

Duties:

- Responsible for the development of a web-based platform for the analysis of structural changes in neurodegenerative pathologies (GAMEs, growing and adaptive meshes).
- Developing state-of-the-art software solutions and apply them in medical imaging diagnosis.
- Publishing research results in international peer-reviewed journals.
- Presenting research results in international conferences.
- Establishing and maintaining international collaborations.
- Project manager for a three-years research project (total amount 300 thousands euro).
- Supervising master students and scientific programmers.
- Giving lectures at the University of Leiden within a course held by Prof. S. Rombouts.

PERSONAL INTERESTS

Swimming, running,

kayaking;

piano and accordion;

biographies, scientific books,

and novels reading;

writing novels and short

stories

The Burnham Institute, La Jolla, San Diego, California, U.S.A.

Software Developer and Consultant

August 2002 - November 2003

Description:

Visiting master student for the development of my master thesis in software engineering. After concluding the project and having defended my thesis, I continued working for the institute on different projects as software engineer first, and as external consultant later on.

Duties:

- Developing a software for automatic evaluation of cardiac functions in drosophila melanogaster: movies were acquired with high speed camera and microscope.
- Presenting at lab meetings both at the Burnham Institute and at the UCSC (University of California, San Diego).
- Writing thesis.
- Working on simulation of complex biological networks.

- Publishing research results in international peer-reviewed journals.

PERSONAL DETAILS

Date of birth:

July the 8th, 1978

Nationality:

Italian

Personal address:

*Riga Feraiou 12A
2042 Strovolos, Nicosia
(Cyprus)*

Mobile phone:

+35795984663

Email:

Ferrarini.L@gmail.com

LinkedIn:

http://it.linkedin.com/in/lucaferrarini

Freelancer organizations

Freelancer consultant 2011 - 2013

Description:

Freelancer consultant with a portfolio including financial analysis (investment optimization, trend prediction, etc.), bioinformatics analysis, and machine learning projects.

City council and other local companies, Carpi, Italy

Tutor and summer jobs September 1997 - July 2002

Description:

Tutor for high school students (financed by the city council). Main subjects: mathematics, physics, computer science, and statistics. Different summer jobs.

PROFESSIONAL AND ACADEMIC SKILLS

Data science and data engineering skills

- Microsoft MCSE Data Management and Analytics
- Microsoft Certification MTA Database Fundamentals. Microsoft Certification 768, Developing SQL Data Models. Microsoft Certification MCSA SQL Business Intelligence Development.
- Microsoft Power Platform and Dynamics 365 core certification
- On-premise solutions for data analytics and reporting based on Microsoft SQL Server BI suite.
- Cloud solutions for (Big) data analytics and visualization based on Azure technologies and Power BI.
- Design and implement machine learning (AI) solutions based on R, SQL Server, and Azure Machine Learning Studio.
- Advanced reporting both on-premise and on cloud with Power BI Service and Power BI Report Server.
- Data Mining for Business Insights.
- Design and development of cognitive-aware chat bots for business (based on Microsoft Bot Framework and Azure Cognitive Services).

Project management and Problem management skills

- Knowledge of agile frameworks (Scrum and Kanban).
- Knowledge of PMI principles.
- Knowledge of tools for task assignment, bug reporting, test-driven development, continuous integration, documentation (Atlassian suite: Jira, Bamboo, Bitbucket, Confluence).
- Skillful in understanding stakeholders needs and translating them into technical requirements.
- Result oriented and proactive.
- Very good social skills.
- Punctual with respect to given deadlines and highly organized.
- Highly capable of relating with different business areas in order to identify and prioritize product-related issues with high impact of software provisioning and operations.

Software engineering skills

- Qualified as software engineer for the Italian order of engineers (section A).
- Proficient in software analysis and development: software and application life cycle management, object-oriented modeling via UML and mind mapping.
- Knowledgeable in BI data insights: information modeling via ER diagrams, relational databases (SQL Server, Oracle, H2, MySQL), machine learning and pattern recognition (R, Python), technical reporting (SQL Server Reporting Services, Power BI).
- Good knowledge of ETL and Datawarehouse modeling, designing, and implementation.
- Data mining: proficient in R, advanced statistics and complex network theory.
- Programming paradigms: procedural and object oriented.
- Programming languages: C# .NET, C, C++, Java SE, Java EE, PHP, Python, HTML, Mevis-LAB, ITK, VTK, Qt, Maven, CMake, Android development, XML, XSD, Java Application Servers (JBoss, WebSphere, Weblogic)
- Basic knowledge of thread-oriented programming, both in Windows and Linux (OpenMP, MPI, doMC R package, SGE, Hazelcast, etc.)
- Developing platforms and supporting tools: SVN/CVS/GIT/TFS repositories, NetBeans, Visual Studio, IncrediBuild, Eclipse, Xcode, vim, and others.
- General applications and operating systems: proficient in T_EX, L^AT_EX, B_IB_TE_X, Microsoft Office, OpenOffice, Windows O.S., Linux O.S., Mac O.S.

Academic and Research skills

- Extensive years of experience in teaching graduates and undergraduates.
- Proficient in pursuing research in applied computing science, establishing collaborations, write and publish scientific publications and present my research results in international conferences.
- Expert in the field of machine learning and their application to the solution of industry-related challenges.
- Medical image analysis: analysis of structural and functional MR images in neurodegenerative diseases.
- Developing of bioimaging and medical imaging software applications.
- Parametric and non-parametric statistics, machine learning and AI solutions.
- Bioinformatics: Next generation sequence analysis, reverse engineering of complex regulatory networks, gene expression and promoter analysis.
- Bioimaging analysis: angiogenesis in cancer, TIRF images for endocytosis studies.

EDUCATION AND ACADEMIC QUALIFICATIONS

Leiden University Medical Center, 2003-2008

Ph.D. in medical image analysis - *Graduated cum laude*

ASCI Advanced School of Computing and Imaging, 2003-2008

Compulsory courses for Ph.D. students in The Netherlands - *Graduated*

University of Modena and Reggio Emilia, 1997-2003

Software Engineer - *Graduated with 110/100 (cum laude)*

Technical Institute L. Da Vinci, Carpi, 1992-1997

Programming expert - *Graduated with 60/60*