Paolo **Cintia**

PHD. · DATA SCIENTIST

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Education

University of Perugia, Department of Computer Science *Perugia, Italy*

B.S. IN COMPUTER SCIENCE *2006*

- Final thesis: "Developing of a distributed algorithm to solve wave equations"

University of Pisa, Department of Computer Science *Pisa, Italy*

M.S. IN COMPUTER SCIENCE *2009*

- Final thesis: "Map matching of GSM records with data mining techinques"

University of Pisa, Department of Computer Science *Pisa, Italy*

PHD IN COMPUTER SCIENCE *2015*

- Final thesis: "Knowledge Discovery through Mobility Big Data integration"

Experience

Kode Solutions srl *Pisa,Italy*

SENIOR DATA SCIENTIST *Sep. 2022 - ongoing*

- Kode is a company focused on develop end-to-end solutions based on Artificial Intelligence adopting a data-driven approach. As a Senior Data Scientist I coordinate Research and Develop projects, following every step: from the relationships with the customer until the final deployment

Playerank srl *Pisa,Italy*

CO-FOUNDER *Jul. 2018 - ongoing*

- Playerank is a startup focused on machine learning applied to sports analytics. Founders are researchers from University of Pisa and ISTI-CNR with many years of experience on the field of Sports Data Science.

University of Pisa, Department of Computer Science *Pisa,Italy*

POST-DOC RESEARCHER *Jan. 2018 - Jan 2022*

- Data Science for Sports Analytics
- Data mining and knowledge extraction from GPS data

International Communication Union *Ginevra, Switzerland*

CONSULTANT *Dec. 2016 - Apr. 2017*

- Data Scientist for the project: "Big Data for Measuring the Information Society"

National Research Council, Institute of Information Science, ISTI-CNR *Pisa,Italy*

POST-DOC RESEARCHER *Jan. 2016 - jan 2018*

- Data mining and knowledge extraction from Call Detail Records, focusing on human mobility
- Data Science for Sports Analytics

University of Pisa, Master Big Data Analytics & Social Mining *Pisa, Italy*

TUTOR *Apr 2016*

- Students Tutor for Big Data Analysis master course

North Eastern University *Boston, USA*

VISITING RESEARCHER *Mar 2016*

- Study on Network Science methods to evaluate sports performances

Parkopedia Ltd *London, UK*

DATA SCIENTIST *Nov 2015 - Mar 2016*

- Analysis of Floating Car Data (GPS logs) with focus on parking events detection and prediction

University of Pisa, Department of Computer Science *Pisa,Italy*

PHD CANDIDATE *Jan 2012 - Dec. 2015*

- Study of GIS framework applied on Mobility Big Data (GPS logs, GSM call records)
- Developing of distributed algorithms for mobility Big Data using Spark framework

Universidad Federal do Cearà *Fortaleza, Brazil*

VISITING RESEARCHER *Aug 2012*

- Study of a point-based map-matching algorithm for estimating travel times on a city road network

University of Tartu *Tartu, Estonia*

VISITING RESEARCHER *Jan 2014 - May 2014*

- Study on events detection through Call Detail Records enriched with higher semantic level data (twitter, web queries, etc.)

Research Projects

SoBigData Research Infrastructure *sobigdata.eu*

PARTICIPANT *Jan 2015 - PRESENT*

- Research project on performance analysis exploiting BigData and IoT

ASAP: an adaptive scalable analytics platform *asap-fp7.eu*

PARTICIPANT *Jan 2015 - Feb 2017*

- Develop of an open source distributed framework for Mobility Big Data Analysis

DATASIM Data Science for Simulating the Era of Electric Vehicles *uhasselt.be/datasim*

PARTICIPANT *2013*

- Study of data mining methods to exploit car traffic prediction models

SEEK Semantic EnrichmEnt of trajectory Knowledge discovery *seek-project.eu*

PARTICIPANT *2012*

- Study on methods for knowledge extraction and semantic enrichment for Mobility Data

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Publications

Year	Title	Publisher
2022	**A Narrative Review for a Machine Learning Application in Sports: An Example Based on Injury Forecasting in Soccer**, Sports 10.1	*MDPI*
2021	**Explaining the difference between men's and women's football**, https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0255407	*PlosOne*
2020	**Automatic Pass Annotation from Soccer VideoStreams Based on Object Detection and LSTM**, European Conference on Machine Learning	*ECML PKDD*
2020	**The relationship between human mobility and viral transmissibility during the COVID-19 epidemics in Italy**, Joint study with Italian Health institute (ISS)	*submitted for publication Nature*
2019	**A public data set of spatio-temporal match events in soccer competitions.**, Scientific Data	
2019	**Relationship between External and Internal Workloads in Elite Soccer Players: Comparison between Rate of Perceived Exertion and Training Load**, Applied sciences	*MDPI*
2019	**PRIMULE: Privacy risk mitigation for user profiles**, Data and Knowledge Engineering	*Elsevier*
2019	**PlayeRank: data-driven performance evaluation and player ranking in soccer via a machine learning approach**, ACM Transactions on Intelligent Systems and Technology (TIST)	*ACM*
2017	**Discovering and Understanding City Events with Big Data: The Case of Rome**, Information (8, no. 3: 74)	*MDPI*
2018	**Effective injury prediction in professional soccer with GPS data and machine learning**, https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0201264	*PlosOne*
2017	**Quantifying the relation between performance and success in soccer**, Advances in Complex Systems	*World Scientific Publishing*
2016	**The Haka Network: Evaluating Rugby Team Performance with Dynamic Graph Analysis**, Dyno 2016: 2nd International Workshop on Dynamics in Networks	*San Francisco, USA*
2015	**"The harsh rule of the goals": Data analytics and football team success**, IEEE International Conference on Data Science and Advanced Analytics	*Paris, France*
2013	**Inferring human activities from GPS tracks.**, 2nd ACM SIGKDD International Workshop on Urban Computing	*Chicago, USA*
2013	**"Engine matters": a first large scale data driven study on cyclists' performance.**, DMCS 2013 - Workshop on Data Mining Case Studies and Practice Prize	*Dallas, USA*
2013	**A gravity model for speed estimation over road network**, Mobile Data Management. IEEE 14th International Conference	*Milano, Italy*
2013	**Mobility profiling.**, Data Science and Simulation in Transportation Research. pp. 1 - 29.	*Book Chapter*

Program Committees

2021	**Reviewer**, Data Mining and Knowledge Discovery	*Springer journal*
2019,2020	**Scientific consultant - Sports technology hall**, Maker Faire	*Roma*
2018	**Reviewer**, EPJ Data Science	*-*
2018	**Program Commitee member**, CompleNet 18 - International Conference on Complex Networks	*Boston- USA*
2017	**Reviewer**, Journal of Sports Sciences	*-*
2017	**Co-organizer ,** DAPS 2017 - 2nd workshop on Data mining for the Analysis of Performance and Success. Co-located with ICDM, International Conference on Data Mining	*New Orleans- USA*
2017	**Program Commitee member**, Machine Learning and Data Mining for Sports Analytics	*Skopje*
2017	**Co-organizer ,** Quantifying Success - 4th satellite Workshop in Science of Success. Co-located with NETSCI2017, International School and Conference on Network Science	*Indianapolis - USA*
2016	**Co-organizer ,** DAPS 2016 - 1st workshop on Data mining for the Analysis of Performance and Success. Co-located with ICDM, International Conference on Data Mining	*Barcelona - Spain*
2015	**Reviewer**, IEEE Transactions on Knowledge and Data Engineering	*-*
2014	**Program Commitee member**, eKnow 2015 - International Conference on Information, Process, and Knowledge Management	*Lisbona*

Writing and Communication

Rigore di testa: storie di pallone, paradossi, algoritmi. Il calcio e i numeri come non li avevate mai visti
https://amzn.to/38u5ujN

AUTHOR   *2021*

• Book covering stories about the application of big data techniques to football. Co-authored with Marco Malvaldi, italian best-seller writer.

DataFC Youtube channel
https://bit.ly/3zebqZ4

AUTHOR AND SPEAKER   *2021*

• Youtube channel dedicated to football analytics

Soccer Data Challenge
"https://bit.ly/3wX2O7D"

CO-ORGANIZER   *2018,2019*

• A 2-days hackathon dedicated to soccer data, organized in conjunction with Internet Festival (2018) and Festival dello Sport (2019)

Il sole24ore - Nòva
"https://bit.ly/3zc11NT"

CONTRIBUTOR   *Jun. 2015*

• Stories from the world of Data Science

Internet Festival 2016
`https://bit.ly/3N5tUzd`

SPEAKER   *Oct. 2016*

• Speech on Sports and Data Science

Internet Festival 2015
`https://bit.ly/3M0SZdp`

SPEAKER   *Oct. 2015*

• Speech on the impact of BigData for soccer

Skills

Programming	Python, Spark, Sql, MongoDb, GIS, LaTeX
Languages	Italian, English