Lorenzo Tenti

Curriculum vitae

Experience

2024 **Principal Data Engineer**, *Century Tech*, London, United Kingdom.

2022 **Senior Data Engineer**, *Century Tech*, London, United Kingdom.
- Design and develop data infrastructure, data lake and data warehouse from scratch.
- Productionise Machine Learning models - MLOPs.

2021 **Senior Data Engineer**, *Kobalt Music*, London, United Kingdom.

2019 **Data Engineer**, *Kobalt Music*, London, United Kingdom.
- Development of ETL pipelines, involving Oracle DB, Spark EMR, Kafka.

2018 **Big Data Engineer**, *IQVIA*, London, United Kingdom.
- Development of highly performant and scalable code running on top of IQVIA Big Data Platform (Spark/Hive/Impala/Hadoop).

2017 **Big Data Engineer**, *Cloudwick Technologies UK*, London, United Kingdom.
- Data analysis and data processing using Scala/Spark.
- Linux system administration & Hadoop ecosystem administration.
- Hadoop ecosystem tools like HIVE, HBASE, PIG, SQOOP, OOZIE etc.
- Amazon Web Services.

2014-2016 **PhD in Computational Chemistry**, *University of Ferrara, Italy*, supervisor: Prof. Celestino Angeli.
- Development of new computational methods for quantum chemistry.
- Use of commercial HPC software, development of new packages.
- Bash and Linux environment.
- Python (as scripting language and tasks automation tool).
- Fortran (for number crunching and scientific programming).

Technical skills

Programming	Python, SQL, Scala, Java, Bash, Fortran, Javascript.
Cloud	Amazon Web Services.
Data	Snowflake, dbt, Dagster, Spark, SageMaker.
DevOps	Terraform, Docker, Git, GitLab, CircleCI, Kubernetes, Flux, Helm
Systems	Unix/Linux, Android, Windows.
Hadoop	Installation and security using Kerberos, Knox and Ranger. Tools: Hive, Impala, HBase, Pig, Sqoop, Oozie.
Typography	LaTeX

Certifications

2017 **Hortonworks HDP Certified Administrator**.

2017 **AWS Certified Solutions Architect - Associate**.

Education

2013 **Master in Chemistry**, *University of Ferrara*, vote 110/110 with honors.

2011 **Bachelor in Chemistry**, *University of Ferrara*, vote 110/110 with honors.

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Training

2015 Workshop: "European Workshop on Theoretical approaches of Molecular Magnetism, JUJOLS VIII", Bages, France. 5 days. Oral presentation.

2015 Two stays at "Departamento de Química Física", Universidad de Sevilla, Spain. 40 days; 3 months.

2015 Summer school: "European Summerschool in Quantum Chemistry", Palermo, Italy. 2 weeks. Poster presentation.

2015 Course: "Python for computational science", CINECA, Bologna, Italy.

2014 Stay at "Laboratory of Physical Chemistry", ETH, Zurich, Switzerland. 3 weeks.

2014 Summer School: "Methods in Molecular Energy Research: Theory and Spectroscopy", Gelsenkirchen, Germany. 1 week. Poster presentation.

2014 Summer School: "Sostrup Summer School – Quantum Chemistry and Molecular Properties", Himmelbjergegnens Natur og Idraetsefterskole, Ry, Denmark. 2 weeks. Poster presentation.

2014 Workshop: "New wavefunction methods and entanglement optimizations in Quantum Chemistry", Mariapfarr, Austria. 4 days.

2014 Course: "Efficient use of Molecular Dynamics simulation applications in an HPC environment", CINECA, Bologna, Italy.

2014 Course: "Introduction to Fortran 90", CINECA, Roma, Italy.

2013 Erasmus Placement: "Laboratoire de Chimie et Physique Quantiques", Universitè Paul Sabatier, Toulouse, France. 3 months.

2013 Course: "Introduction to Parallel Computing with MPI and OpenMP", CINECA, Bologna, Italy.

2013 Course: "HPC Scientific programming: tools and techniques", CINECA, Bologna, Italy.

2013 Degree of excellence: "Ferrara School of Chemistry".

Languages

Italian	Native	
English	Advanced	*Level C1*
French	Basic	*Level A1*
Spanish	Basic	*Level A1*

Publications

2017 Tenti, L., Giner, E., Malrieu, JP., Angeli, C., *Strongly localized approaches for delocalized systems. I. Ground state of linear polyenes*, Computational and Theoretical Chemistry, DOI: 10.1016/j.comptc.2017.01.021.

2017 Giner, E., Tenti, L., Angeli, C., Ferré, N., *Computation of the isotropic hyperfine coupling constant: efficiency and insights from a new approach based on wave function theory*, Journal of Chemical Theory and Computation, DOI: 10.1021/acs.jctc.6b00827.

2016 Giner, E., Tenti, L., Angeli, C., Malrieu, JP., *The "Fermi hole" and the correlation introduced by the symmetrization or the anti-symmetrization of the wave function*, J. Chem. Phys, 2016, 145, 124114.

2016 Tenti, L., Maynau, D., Angeli C., Calzado, J. C., *Highly efficient perturbative + variational strategy based on orthogonal valence bond theory for the evaluation of magnetic coupling constants. Application to the trinuclear Cu(II) site of multicopper oxidases*, Phys. Chem. Chem. Phys, 2016, 18, pp 18365-18380.

2014 El Khatib, M., Bendazzoli, G. L., Evangelisti, S., Helal, W., Leininger, T., Tenti, L., Angeli, C., *Beryllium Dimer: A Bond Based on Non-Dynamical Correlation*, J. Phys. Chem. A, 2014, 118 (33), pp 6664-6673.

2013 Angeli, C., Cimiraglia, R., Dallo, F., Guareschi, R., Tenti, L., *Dependence of the population on the temperature in the Boltzmann distribution: a simple relation involving the average energy*, J. Chem. Educ., 2013, 90 (12), pp 1639–1644.

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