

CURRICULUM VITAE – ALESSANDRO FOGLI

CONTACT INFORMATION	Department of Computing Imperial College London 180 Queen's Gate London, SW7 2AZ, UK	Phone: +39 3385458368 Email: a.fogli18@imperial.ac.uk URL: https://www.doc.ic.ac.uk/~af6618
RESEARCH INTERESTS	My research interests lie within the broad area of systems including large-scale distributed systems, systems support for data analytics in the cloud environment, cluster resource management and distributed query processing with emphasis on modern hardware.	
EDUCATION	Ph.D., Computer Science Large-Scale Data and Systems Group, Department of Computing, Imperial College London, UK. Specialisation: Distributed Data Processing Systems on Modern Hardware. Supervisors: Prof. Peter Pietzuch, Prof. Dr. Jana Giceva.	01/2019 - Expected 12/2024
	Visiting Ph.D. Student, Computer Science Chair for Database Systems, Department of Computing, Technische Universität München, Germany. Project: Enhancing Data Processing on Chiplet-Based Processors. Supervisor: Prof. Dr. Jana Giceva	11/2023 - 07/2024
	M.Sc., Computer Science Department of Computer Science, Roma Tre University, Italy. Honours: Summa Cum Laude distinction.	09/2015 - 12/2017
	B.Sc., Computer Science Department of Computer Science, Roma Tre University, Italy.	09/2012 - 07/2015
PROFESSIONAL EXPERIENCE	Meta , London, United Kingdom <i>Software Engineer Intern</i> Part of the Workrooms VC Media Engineering team, developing an efficient cross-platform media communication prototype. Conducted comparative analyses of media IPC across operating systems and executed performance benchmarking assessments to gauge the prototype's impact on real-time media processing within Meta's proprietary framework.	06/2023 - 10/2023
	Oracle Labs , Zürich, Switzerland <i>Research and Software Engineer Intern</i> Part of the research team involved in the development of HeatWave, an in-memory analytics accelerator for MySQL. Implemented primitives (low-level operations in HeatWave) to increase query offloads to HeatWave. Investigated various OCI (Oracle Cloud) storage services for supporting high availability and elasticity. Defined and evaluated a new NUMA-aware deployment strategy for the HeatWave execution engine.	04/2019 - 12/2019
	Nokia Bell Labs , Cambridge, United Kingdom <i>Research Intern</i> Built a system for quantitative analysis of the content of people's dreams in textual form from scratch. The system automatically scores dream reports by operationalizing the widely used dream analysis scale by Hall and Van de Castle. The system quantifies important aspects of dreams, making it possible to build technologies that bridge the current gap between real life and dreaming.	03/2018 - 09/2018
	AI Group, Roma Tre University , Rome, Italy <i>Undergraduate Research Assistant</i> Developed a context-aware route recommendation system from Linked Open Data, extracting user-relevant points of interest via SPARQL queries. Created a polystore system on PostgreSQL, MongoDB, and Neo4j, enabling users query all databases via SQL and gather unified JSON results.	03/2017 - 12/2017
	Com.Tel S.p.A , Rome, Italy <i>System Software Engineer Intern</i> Built a cloud infrastructure using open source technologies (Openstack and Docker) with subsequent migration of business applications. Improved the performance of the IT business department in terms of scalability, provisioning time, and service delivery speed.	07/2015 - 01/2016

UNDER REVIEW PUBLICATIONS	<p>[1] Fogli A., Zhao B., Pietzuch P. and Giceva J. CHARM : Chiplet Heterogeneity-Aware Runtime Mapping System. <i>ACM SIGMOD/PODS</i>, 2025.</p>	
SELECTED PUBLICATIONS	<p>[2] Fogli A., Zhao B., Pietzuch P., Bandle M. and Giceva J. OLAP on Modern Chiplet-Based Processors. <i>Proc. VLDB Endow.</i> 17, 11 (July 2024), 3428-3441. DOI: https://doi.org/10.14778/3681954.3682011</p> <p>[3] Fogli A., Pietzuch P. and Giceva J. Optimizing Sorting for Chiplet-Based CPUs. <i>ADMS @ VLDB 2024</i></p> <p>[4] Fogli A., Aiello L. M. and Quercia D. Our dreams, our selves: automatic analysis of dream reports. <i>Royal Society Open Science</i>, 7:192080, 2020. DOI: https://doi.org/10.1098/rsos.192080</p> <p>[5] Fogli A. and Sansonetti G. Exploiting semantics for context-aware itinerary recommendation. <i>Personal and Ubiquitous Computing</i>, 23:215–231, 2019. DOI: https://doi.org/10.1007/s00779-018-01189-7</p> <p>[6] Fogli A., Micarelli A. and Sansonetti G. Enhancing Itinerary Recommendation with Linked Open Data. In: <i>HCI International 2018 - Posters' Extended Abstracts. Communications in Computer and Information Science, vol 850. Springer, Las Vegas, Nevada</i>, 2018. DOI: https://doi.org/10.1007/978-3-319-92270-6_5</p>	
TECHNICAL SKILLS	<p>Programming: Experience in C/C++, Java and Python; good knowledge of Bash scripting. Knowledge of concurrent and functional programming, UML, design patterns, best practices, TDD, Agile Development.</p> <p>Database Systems: Good knowledge of Database concepts and emerging technologies related to it. Very familiar with SQL. Experience with distributed relational databases and query engines (HeatWave, Presto, Velox, Greenplum, SingleStore, MySQL, PostgreSQL, StarRocks).</p> <p>Artificial Intelligence and Big Data: Experience in Machine Learning, Information Retrieval and Data Mining. Knowledge of NLP. Knowledge of Hadoop ecosystem, Map-Reduce paradigm and main Big Data tools (Hive, Spark). Knowledge of No-SQL Databases.</p> <p>Other Experience: Experience in networking design with modern communication protocols (RDMA, DPDK). Experience with Cloud Platforms (AWS, Oracle Cloud). 10+ years of experience with GNU/Linux daily usage and administration. Experience with git system and version control processes in a large production-grade R&D environment; Extensively using VTune and perf for bottleneck analysis and performance profiling; Fluent in technical writing in \LaTeX.</p>	
TEACHING EXPERIENCE	<p>Teaching Assistant at Imperial College London</p> <p>Scalable Systems and Data</p> <p>Advanced Databases</p> <p>Operating Systems</p> <p>OS Laboratory</p> <p>OS Advanced Laboratory</p>	09/2020 - Present
AWARDS AND FUNDING	<p>Doctoral Scholarship</p> <p>Scholarship to cover funding for PhD studies as well as monthly stipend, Imperial College London</p> <p>ERASMUS+ Traineeship</p> <p>Winner of one of 5 grants for the ERASMUS+ program: Student Mobility for Traineeship, Roma Tre University</p>	<p>awarded in 2019</p> <p>awarded in 2017</p>