

# Sergio Barrachina-Muñoz, Ph.D. AI Research Engineer, MLOps & Technical Lead

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CONTACT INFORMATION	Email: <a href="mailto:barachina.sergio@gmail.com">barachina.sergio@gmail.com</a> Website: <a href="https://sergiobarra.github.io/">https://sergiobarra.github.io/</a> Barcelona (Spain)	Tel: +34 608108238 
PROFESSIONAL SUMMARY	Leveraging my background as a Telco/AI PhD and Research Scientist, I specialize in the convergence of 5G/6G, Wi-Fi, and AI/ML. As head of a research lab and datacenter with a team of 5+, I also lead the MLOps infrastructure that supports our work. I develop and deploy production LLM applications for both research project solutions and intelligent lab operations. Additionally, I bring over a decade of experience teaching undergraduate engineering students.	
PROFESSIONAL EXPERIENCE	<b>Senior Researcher</b> in Services as NetworkS (SaS) at CTTC Mar 2021 - <i>currently</i> <ul style="list-style-type: none"><li>Architected and administered a large-scale, cloud-native datacenter (3,000+ CPU cores, 15 TB RAM, 1 PB storage, 20+ GPUs) to support AI/ML workloads and network research for a team of 5+ people.</li><li>Spearheaded the design and development of an "Experiment-as-a-Service" (EaaS), enabling autonomous, remote access to 5G/6G testbeds for external stakeholders.</li><li>Led the end-to-end development of multiple 5G/6G proofs-of-concept, including a 5G RAN, O-RAN, core, satellite, and AI/LLM-based frameworks across edge and cloud.</li><li>Managed the experimental part of 10+ EU/Spanish research projects, from planning to technical delivery and reporting.</li></ul> <b>Course Instructor</b> at UOC Feb 2021 - <i>currently</i> <ul style="list-style-type: none"><li>Teach networking courses, mentoring 150+ students annually in telecom concepts.</li></ul> <b>Lead QA engineer, Wi-Fi expert</b> at Centum Solutions Jan 2021 - Mar 2021 <ul style="list-style-type: none"><li>Defined standards and procedures for automated testing infrastructure.</li><li>Communicated with stakeholders to understand and clarify performance requirements.</li></ul> <b>Software developer engineer intern</b> at Ricoh Spain Feb 2015 - Oct 2015 <ul style="list-style-type: none"><li>Java ME development and service/project support.</li></ul> <b>QA intern</b> at Vendo Services Jun 2014 - Oct 2014 <ul style="list-style-type: none"><li>Wrote and executed test scripts and plans in development, staging, and production.</li></ul>	
EDUCATION	<b>PhD</b> in the Wireless Networking research group (UPF) Oct 2016 - Jan 2021 <ul style="list-style-type: none"><li>Thesis (<i>cum laude</i>): <i>Responsive Spectrum Management for WLANs</i>. <a href="#">Link</a>.</li><li>Research stay at Rice Networks Group in Rice University (Houston, United States).</li></ul> <b>MSc</b> , Intelligent and Interactive Systems at UPF Sep 2015 - Jul 2016 <b>BSc</b> , Telematics Engineering at UPF ( <i>Top of class</i> ) Sep 2011 - Jul 2015	
SKILLS	<ul style="list-style-type: none"><li><b>Programming:</b> Python, Java, C/C++, Go, Matlab, LaTeX</li><li><b>AI &amp; MLOps:</b> LLMs, Ollama, RAG, multi-agent frameworks, CI/CD pipelines, NVIDIA CUDA, PyTorch, MCP</li><li><b>Cloud &amp; DevOps:</b> Linux, LXD, TCP/IP, Docker, Kubernetes, OpenStack, Ansible, Puppet, Prometheus, Grafana, Kafka <i>Preparing for CKA certification</i>.</li><li><b>Telecom &amp; 5G:</b> Open5GS, Free5GC, OpenAirInterface, Amarisoft, SRS</li><li><b>Collaboration &amp; Workflow:</b> GitHub, GitLab, Jira, Confluence, Agile, Kanban, Roadmapping</li></ul>	
LANGUAGES	Spanish (C2), Catalan (C2), English (C1), German (A2)	
REFERENCES	<ul style="list-style-type: none"><li>Rasoul Nikbakht, <i>Senior ML Engineer at Keysight Tech.</i> <a href="mailto:rasoul.nikbakht@keysight.com">rasoul.nikbakht@keysight.com</a></li><li>Luis Sanabria-Russo, <i>DevOps Engineer at O(1)</i> <a href="mailto:luis@o1labs.org.com">luis@o1labs.org.com</a></li><li>Edward Knightly, <i>Head of Networks at Rice University</i> <a href="mailto:knightly@rice.edu">knightly@rice.edu</a></li></ul>	