

Nicolas Meseguer Iborra

Portfolio: nicolasmeseguer.github.io

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EDUCATION

- Universidad de Murcia** Murcia, Spain
• *PhD - Computer Architecture* October 2022 - December 2026
Goal: Suggest approaches for addressing two transcendental concerns in the design of a heterogeneous processor's memory system; (1) novel organizations for the memory structures and (2) share the same memory space across general purpose cores and hardware accelerators.
- Universidad de Murcia** Murcia, Spain
• *Master of Science - New Technologies in Computer Science; GPA: 9.24* September 2021 - June 2022
Courses: High Performance Computing and Architecture, Microarchitecture of the processing cores, Parallel programming standards, Compiler-optimised libraries, High performance system administration
- Universidad Catolica San Antonio de Murcia** Murcia, Spain
• *Bachelor of Science - Computer Engineering; GPA: 9.31* October 2018 - June 2021
Courses: Computer Programming, Information Science, Networking, Operating Systems, Databases, Mathematics, Software Architecture, Algorithms, Data Structures
- Universidad Catolica San Antonio de Murcia** Murcia, Spain
• *Intern Student* October 2019 - June 2020
Objectives: Introduction to Machine Learning (ML) and Deep Learning (DL) using novel-models: MLPs, RNNs and CNNs
- IES Jose Planes** Murcia, Spain
• *Higher National Certificate - Web App Developer; GPA: 8.84* October 2016 - June 2018
Courses: Databases, High-level Computer Architecture, Web Language, Client and Server side frameworks, Usability and UX+UI

SKILLS SUMMARY

- **Languages:** Python, C(++), Java, PHP, JavaScript, SQL, Bash, JAVA
- **Frameworks:** Laravel, Scikit, TensorFlow, Keras, Django
- **Tools:** Docker, GIT, SSH
- **Platforms:** Linux, Web Apps, AWS
- **Parallelization:** OpenMP, MPI, CUDA, Heterogeneous Programming
- **Others:** Advanced Memory Usage (Memory Registers, Pinned Memory)

EXPERIENCE

- Universidad Catolica San Antonio de Murcia** Murcia, Spain
• *Research Initiation Grant (Part-time)* Feb 2021 - Jul 2021
 - **Objectives:** In charge of developing a hybrid accelerator (CPU+GPU) for a recommender neural network model (DLRM, WATERoT) using specialized accelerator architectures for inference (SIGMA, MAERI). Aiming at maximizing the model efficiency, waiting times and studying memory accesses (W/R) and total cycles consumed.
- Plinga GmbH** Berlin, Germany
• *Full-stack Web Developer Erasmus+ Internship (Full-time)* Mar 2018 - Sep 2018
 - **Experience acquired:** First-hand experience on front-end and back-end of various PHP and Ruby projects, including Amazon AWS services (EC2 servers, Databases and CDNs)

PUBLICATIONS

- **CPU-PCGCN: Procesamiento Eficiente de Redes Convolucionales de Grafos en Arquitecturas CPU (Deep Learning, Graph Neural Networks):** Work in XXXII Jornadas de Paralelismo (JP). Tech: Python, PyTorch, C++, C, Bash (September '22)
- **Evaluacion de un Sistema de Recomendacion en un Acelerador Hibrido (Deep Learning, Recommender System):** Work in XXXI Jornadas de Paralelismo (JP). Tech: Python, PyTorch, C++, Bash (September '21)

HONORS AND AWARDS

- Extraordinary Award for the Best Academic Record (Bachelor Degree) - Jun, 2022
- Research Initiation Grant (Bachelor Degree) - Feb, 2021
- Erasmus+ Scholarship for an abroad Internship (HNC Degree) - Mar, 2018