


## CURRICULUM VITAE

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| <b>PERSONAL INFORMATION</b>   | RAFFAELE MONTELLA  |
|  | The University of Naples "Parthenope", Via: Acton 38, City: Naples (Italy) |
|   | Tel.: +390815476613 Mobile: +393393055922                                  |
|   | E-mail: raffaele.montella@uniparthenope.it                                 |
|   | <a href="https://raffaelemontella.it">https://raffaelemontella.it</a>      |
|   | Male / 10.05.1972  |
|   | h-index: 24 Total citations: 1232 (Scopus)                                 |

| Enterprise                                     | University   | EPR   |
|--|--|---|
| <input type="checkbox"/> Management Level      | <input type="checkbox"/> Full professor  | <input type="checkbox"/> Research Director and 1 <sup>st</sup> level Technologist/First Researcher and 2 <sup>nd</sup> level Technologist |
| <input type="checkbox"/> Mid-Management Level  | <input checked="" type="checkbox"/> Associate professor  | <input type="checkbox"/> Level III Researcher and Technologist  |
| <input type="checkbox"/> Employee/worker level | <input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level/Technical collaborator | <input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level/Technical collaborator                                    |

| WORK EXPERIENCE |  |
|-----------------|--|
| 2022 - present  | POSITION: Associate Professor of Computer Science (INF01, 01/B1) with tenure.  |
|                 | INSTITUTIONAL ADDRESS: University of Naples "Parthenope", Naples, Italy.   |
|                 | Research Topics: High-Performance Computing, Cloud Computing, GPU Virtualization, Scientific Workflows, Internet of Things, Computational Environmental Science. |
|                 | Research or Industry: Research   |
| 2008 - 2021     | POSITION HELD Assistant Professor of Computer Science (INF01, 01/B1) with tenure.  |
|                 | INSTITUTIONAL ADDRESS: University of Naples "Parthenope", Naples, Italy.   |
|                 | Research Topics: High-Performance Computing, Cloud Computing, GPU Virtualization, Scientific Workflows, Internet of Things, Computational Environmental Science. |
|                 | Research or Industry: Research   |

| EDUCATION AND TRAINING |  |
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| 2005 | PhD in Marine Science and Engineering |
|      | University of Naples "Federico II"    |

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|      | Topics: Environmental modelling with Grid Computing  |
| 1998 | M.Sc+B.Sc in Environmental Science                   |
|      | Naval University of Naples                           |
|      | Topics: Development of a GIS for marine applications |

### PROJECTS (last five years)

| With leadership roles |   |
|-----------------------|---|
| 2024-2025             | MytilX: Modelling mytilus farming at scale (IZSUM, PI)  |
| 2023-2025             | FGPE Plus Plus: Gamified Programming Learning at Scale (Erasmus Agency, Local PI)   |
| 2023-2028             | MytilEx: Extended Modeling mytilus farming System with High-Performance Computing and Artificial Intelligence (Campania Region, PI) |
| 2022-2023             | DX4S: DataX for the Sea (NEC Labs of America, PI)   |
| 2020-2023             | Borgo 4.0: A-Mobility (Campania Region, Local PI)   |
| 2021-2023             | FGPE Plus: Learning tools interoperability for gamified programming education (Erasmus Agency, Local PI)                            |
| 2021-2023             | MytilAI: Modeling mytilus farming with Artificial Intelligence technologies (Campania Region, PI)                                   |
| 2021-2024             | ADMIRE: Adaptive Multi-tier intelligent data manager for Exascale (H2020 EuroHPC, Local PI)   |
| 2018-2021             | FGPE: Framework for Gamified Programming Education (Erasmus Agency, Local PI)   |

### ADDITIONAL INFORMATION

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| 2023 | Italian National Academic Qualifications as a Full Professor in Computer Science (01/B1) |
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### PUBLICATIONS

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| Publications best and most relevant in the last 10 years | <p>1- Montella, R., D. Kelly, W. Xiong, A. Brizius, J. Elliott, R. Madduri, K. Maheshwari et al. "FACE- IT: A science gateway for food security research." <i>Concurrency and Computation: Practice and Experience</i> 27, no. 16 (2015): 4423-4436.</p> <p>2- Di Luccio, D., A. Riccio, A. Galletti, G. Laccetti, M. Lapegna, L. Marcellino, S. Kosta, R. Montella. "Coastal marine data crowdsourcing using the Internet of Floating Things: Improving the results of a water quality model." <i>IEEE Access</i> 8 (2020): 101209-101223.</p> <p>3- Montella, R., S. Kosta, D. Oro, J. Vera, C. Fernández, C. Palmieri, D. Di Luccio, G. Giunta, M. Lapegna, and G. Laccetti. "Accelerating Linux and Android applications on low-power devices through remote GPGPU offloading." <i>Concurrency and Computation: Practice and Experience</i> 29, no. 24 (2017): e4286.</p> <p>4- Montella, R., G. Giunta, G. Laccetti, M. Lapegna, C. Palmieri, C. Ferraro, V. Pelliccia, C. Hong, I. Spence, D. S. Nikolopoulos. "On the virtualization of CUDA based GPU remoting on ARM and X86 machines in the GVirtuS framework." <i>International Journal of Parallel Programming</i> 45 (2017): 1142-1163.</p> |
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- 5- Montella, R., G. Giunta, G. Laccetti. "Virtualizing high-end GPGPU on ARM clusters for the next generation of high performance cloud computing." *Cluster computing* 17 (2014): 139-152.
- 6- Laccetti, G., R. Montella, C. Palmieri, V. Pelliccia. "The high performance internet of things: using GVirtuS to share high-end GPUs with ARM based cluster computing nodes." In *International Conference on Parallel Processing and Applied Mathematics*, pp. 734-744. Berlin, Heidelberg: Springer Berlin Heidelberg, 2013.
- 7- Montella, R., M. Ruggieri, S. Kosta. "A fast, secure, reliable, and resilient data transfer framework for pervasive IoT applications." In *IEEE INFOCOM 2018-IEEE conference on computer communications workshops (INFOCOM WKSHPS)*, pp. 710-715. IEEE, 2018.
- 8- Sánchez-Gallegos, D. D., D. Di Luccio, S. Kosta, J. L. Gonzalez-Compean, and R. Montella. "An efficient pattern-based approach for workflow supporting large-scale science: The DagOnStar experience." *Future Generation Computer Systems* 122 (2021): 187-203.
- 9- Montella, R., D. Di Luccio, L. Marcellino, A. Galletti, S. Kosta, G. Giunta, I. Foster. "Workflow-based automatic processing for internet of floating things crowdsourced data." *Future generation computer systems* 94 (2019): 103-119.
- 10- Montella, R., A. Brizius, D. Di Luccio, C. Porter, J. Elliot, R. Madduri, D. Kelly, A. Riccio, I. Foster. "Using the face-it portal and workflow engine for operational food quality prediction and assessment: An application to mussel farms monitoring in the bay of napoli, italy." *Future Generation Computer Systems* 110 (2020): 453-467.

According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV.

Date and signature (remove if digitally signed) **11 April 2024, Raffaele Montella**

