

CURRICULUM VITAE

PERSONAL DETAILS

- » Name: Nestor Timonidis
- » Position: Postdoctoral researcher
- » E-mail address: nostos91@gmail.com
- » Date of birth: 23/05/1991
- » Place of birth: Thessaloniki, Greece

PROFESSIONAL EXPERIENCE

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| 01-11-2024
Present | - | Independent Software Engineering Projects | Cologne, Germany |
| <ul style="list-style-type: none">» Refactoring and redesigning scientific software pipelines using modern software engineering principles and modular architectures» Expanding expertise in AI/ML engineering through advanced coursework in foundation models / LLMs, modern Deep Learning, PyTorch and computational modeling» Building reproducible GitHub-based development workflows with emphasis on maintainability, scalability, and code quality» Automating Organ-on-a-Chip device processes using C++ and Arduino IDE workflows» Developing synthetic-data and algorithmic projects related to computational neuroscience and large-scale biological datasets» Developed a postdoctoral fellowship proposal in collaboration with the University of Oxford for the Marie Skłodowska-Curie Actions (MSCA) program | | | |
| 01-11-2023
31-10-2024 | - | Post-doctoral researcher, Institute of experimental epileptology and cognition research | University Hospital
Bonn, Bonn, Germany |
| <ul style="list-style-type: none">» Department: Epileptology» Principal Investigator: Prof. Dr. Tatjana Tchumatchenko» Research Group: Tchumatchenko Group» Project description: studying in silico the spatiotemporal dynamics of the distribution of mRNA molecules and their corresponding proteins along the axonal tree of a typical pyramidal neuron | | | |
| 01-10-2021
30-10-2023 | - | Post-doctoral researcher, Donders Centre for Neuroscience | Radboud University
Nijmegen, Nijmegen,
the Netherlands |
| <ul style="list-style-type: none">» Department: Neuroinformatics» Principal Investigator: Prof. Dr. Paul Tiesinga» Research Group: Tiesinga Group» Project title: Neurons reunited» Project description: data and software to reconstruct long-range projection neurons from brain tissue, place them in a digital reference brain with high precision, and model their interactions | | | |
| 15-08-2017
26-08-2021 | - | PhD candidate / Junior Researcher, Donders Centre for Neuroscience | Radboud University
Nijmegen, Nijmegen,
the Netherlands |
| <ul style="list-style-type: none">» Department: Neuroinformatics» PhD Promoter: Prof. Dr. Paul Tiesinga» Research Group: Tiesinga Group» Topic: Integration of multiscale neuroanatomical data sources for augmenting the mouse mesoconnectome | | | |

01/09/2016 - 17/01/2017	Intern, Center for Molecular and Biomolecular Informatics	Radboud University Medical Center, Nijmegen, the Netherlands
	» Internship Supervisor: Prof. Dr. Sacha van Hijum » Position: Computer Scientist (1 fte) » Internship title: Analysis of longitudinal microbiome data » Internship description: Application of a number of statistical correlations, clustering and classification algorithms to DNA sequences generated from microbial communities residing in the vagina of healthy female individuals over multiple time points. The purpose of this microbiome data analysis was to find connections between particular microbes, which are predictive for the health status of an individual » CMBI's website: http://www2.cmbi.ru.nl/ » Working tools: Python 2.7, R, Linux terminal	
01/01/2015 - 01/06/2016	Freelancer	
	» Computer Hardware Repair/Change, Computer Operating System Installation/Format, Computer Maintenance, Software Installation	
01/03/2014 - 01/05/2014	Intern, Qbase R&D	Epirus Science and Technology Park, Ioannina, Greece
	» Position: Software Developer (1 fte) » Project description: Development of an extension to the <i>Alexilio</i> project, an intelligent system that provides smart indications to alert people from overexposure to solar radiation. Link for the Alexilio application. This extension updated the weather alert indications, by taking into account the local humidity. Information for humidity was taken from the local weather database and from trusted internet weather websites. » Company's website: http://www.qbase.gr/en » Working tools: Java programming language, Netbeans IDE, Java Database Connectivity (JDBC) API	

»»» EDUCATION

2015 - 2017	Master's Degree, Computer Science and Engineering	University of Ioannina, Ioannina, Greece
	» Master Thesis: Longitudinal microbiome data analysis with the application of Machine learning methods » Thesis Advisor: Prof. Dr. Aristidis Likas » Specialization field: Technology and Applications » Study emphasis: Machine Learning, Data Mining, Biomedical Informatics, Optimization » Notable course grades: Data Mining : 10, Optimization : 8.5, Medical Informatics : 9.5, Online Social Networks and Media : 7.5	
2009 - 2015	Bachelor's Degree, Computer Science and Engineering	University of Ioannina, Ioannina, Greece
	» Bachelor Thesis: Creation of an agglomerative clustering algorithm and its application on face image clustering » Thesis Advisor: Prof. Dr. Aristidis Likas » Thesis grade: 10 » Study emphasis: Pattern recognition, Data Mining, Neural Networks » Notable course grades: Optimization : 10, Pattern Recognition : 7, Digital Image Processing : 7, Applied Statistics : 8, Multimedia : 9	

»»» SKILLS

- » Programming Languages: Python, C/C++, Java, Matlab, R, MySQL
- » Python libraries: NumPy, SciPy, Scikit-learn, TensorFlow, PyTorch, Scikit-Image, OpenCV, NiBabel, SimpleITK
- » Technologies: Linux Bash Scripting, Git / Version Control, High-Performance Computing, Unit Testing
- » Soft Skills: Scientific Writing, Public Speaking, Conference Presenting, Supervising
- » Spoken Languages: English (C2), Greek (Native), Dutch (A2), German (A2)

»»» AWARDS

2024	Humboldt Research Fellowship	University Hospital Bonn, Germany
	» Awarded the Humboldt Research Fellowship for postdocs and experienced researchers to conduct research at the group of Prof. Dr. Tatjana Tchumatchenko at the University Hospital Bonn » Humboldt Research Fellowship website: https://www.humboldt-foundation.de/en/apply/sponsorship-programmes/humboldt-research-fellowship	
2016	Erasmus+ Traineeship Scholarship	University University Medical Centre, Nijmegen, the Netherlands
	» Awarded the Erasmus+ Traineeship Scholarship for a five month internship at the Centre for Molecular and Biomolecular Informatics of Radboud UMC. More information can be found at the section "Professional Experience"	
2008	Hellenic Youth Parliament	Greek Parliament, Athens, Greece
	» Selected to participate at the Hellenic Youth Parliament organization as a teenage deputy by winning an essay contest	

»»» TEACHING

13/05/2024 - 17/05/2024	Mathematics for Neuroscience, postgraduate course, Teaching Assistant	University Hospital Bonn, Germany
01/11/2021 - 01/02/2022	Computational Neuroscience, postgraduate course, Teaching Assistant	Radboud University Nijmegen, the Netherlands
01/11/2018 - 01/02/2021	Methods In Neuroscience, postgraduate course, Teaching Assistant	Radboud University Nijmegen, the Netherlands

»»» PUBLICATIONS

28/08/2024	Beyond barrels: diverse thalamocortical projection motifs in the mouse ventral posterior complex	Mario Rubio-Teves, Pablo Martín-Correa, Carmen Alonso-Martínez, Diana Casas-Torremocha, Maria Garcia-Amado, Nestor Timonidis, Francesco J. Sheiban, Rembrandt Bakker, Paul Tiesinga, César Porrero and Francisco Clascá
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Journal of Neuroscience, doi: <https://doi.org/10.1523/JNEUROSCI.1096-24.2024>

01/02/2023	Translating single-neuron axonal reconstructions into meso-scale connectivity statistics in the mouse somatosensory thalamus	Nestor Timonidis, Rembrandt Bakker, Mario Rubio-Teves, Carmen Alonso-Martinez, Maria Garcia-Amado, Francisco Clasca, Paul Tiesinga
Frontiers in Neuroinformatics, doi: https://doi.org/10.3389/fninf.2023.1272243		
21/10/2023	Analyzing Thalamocortical Tract-Tracing Experiments in a Common Reference Space	Nestor Timonidis, Mario Rubio-Teves, Carmen Alonso-Martinez, Rembrandt Bakker, Maria Garcia-Amado, Paul Tiesinga, Francisco Clasca
Neuroinformatics, Springer, doi: https://doi.org/10.1007/s12021-023-09644-4		
10/07/2021	Progress towards a cellularly resolved mouse mesoconnectome is empowered by data fusion and new neuroanatomy techniques	Nestor Timonidis, Paul Tiesinga
Neuroscience & Biobehavioral Reviews, Elsevier, doi: https://doi.org/10.1016/j.neubiorev.2021.06.016		
11/03/2021	Uncovering statistical links between gene expression and structural connectivity patterns in the mouse brain	Nestor Timonidis, Alberto Llera, Paul Tiesinga
Neuroinformatics, Springer, doi: https://doi.org/10.1007/s12021-021-09511-0		
24/05/2020	Prediction of a cell-class-specific mouse mesoconnectome using gene expression data	Nestor Timonidis, Rembrandt Bakker, Paul Tiesinga
Neuroinformatics, Springer, doi: https://doi.org/10.1007/s12021-020-09471-x		

»»» CONFERENCES

10/2024	Bernstein Conference 2024, Participant	Frankfurt, Germany
08/2024	Bonn Brain 2024 Conference, Participant	Bonn, Germany
06/2024	Federation of European Neuroscience Societies (FENS) Forum 2024, Participant	Paris, France
07/2022	Federation of European Neuroscience Societies (FENS) Forum 2022, Participant	Paris, France
01/2020	4th HBP Student Conference on Interdisciplinary Brain Research, Participant	Pisa, Italy
02/2019	3rd HBP Student Conference on Interdisciplinary Brain Research, Participant	Ghent, Belgium
08/2018	6th Annual HBP Summit, Participant	Maastricht, the Netherlands
03/2018	Dutchbrain: National Outreach Event of the Human Brain Project, Participant	Amsterdam, the Netherlands
02/2018	2nd HBP Student Conference: Transdisciplinary Research Linking Neuroscience, Brain Medicine and Computer Science. Participant	Ljubljana, Slovenia
08/2017	5th Annual HBP Summit, Participant	Glasgow, United Kingdom
05/2015	3rd Panhellenic Conference on Communications and Electronics (PACET 2015), Attendant	Ioannina, Greece
05/2014	8th Panhellenic Conference on Artificial Intelligence (SETN 14), Attendant	Ioannina, Greece

