STEVO RACKOVIĆ
Data Scientist - Researcher at Instituto Superior Técnico

I am an ambitious and curious researcher with a strong background in **applied mathematics** and **machine learning**. After finishing my Ph.D. studies, I plan to pursue an industrial career in the field of machine learning and artificial intelligence. In particular, I am interested in applying cutting-edge technology advances to everyday problems with the goal of improving living standards and easing daily routines.

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Work Experience

Early Stage Researcher - Institute for Systems and Robotics, Instituto Superior Técnico, Lisbon │ 2019 - present
- Research in distributed optimization and ML models with application in the animation industry.
- Part of Marie Curie Actions - BIGMATH.

Junior Researcher - Faculty of Sciences, University of Novi Sad │ 2018 -2019
- Developing models for distributed implementation of the commonML algorithms.
- Part of a team working on IBiDaaS H2020: Industrial-driven big data as a self-service project.

Intern - BIOSENSE Institute, Novi Sad │ Summer 2017
- Developing an ML model that would accurately recognize the cultures planted in specific fields using satellite images
- Remote Sensing Lab.

Education History

PhD Candidate in Statistics and Stochastic Processes
Marie Skłodowska-Curie Fellow
Instituto Superior Técnico, University of Lisbon │ *2019 - present*
- The curriculum *covers machine learning, optimization, and statistics with a high demand for both theoretical and practical skills.*
- *Thesis: Distributed optimization of biokinetic models based on large 4D sequences*
- The goal is solving large-scale optimization problems in the face animation of video games. The main focus is on a distributed optimization setting for reducing computational costs.

Masters in Applied Mathematics, Data Science
Faculty of Sciences, University of Novi Sad │ *2016 - 2018*
- *The curriculum focuses on the task of extracting knowledge from data, utilizing machine learning, deep learning, optimization, and signal processing tools.*
- *Thesis: Parallel Implementation of Machine Learning Algorithms using PyCOMPSs*

Bachelors in Applied Mathematics, Finance
Faculty of Sciences, University of Novi Sad │ 2013 - 2016
- The curriculum ensures a strong theoretical basis for advanced and more complex mathematical theories, but also a basis for the applications of acquired knowledge in the mathematical modeling of practical problems.

Publications

Clustering of the Blendshape Facial Model, S. Racković, C. Soares, D. Jakovetić, Z. Desnica, R. Ljubobratović, 2021, 29th European Signal Processing Conference (EUSIPCO)

A hybrid compartmental model with a case study of COVID-19 in Great Britain and Israel, G. Malaspina, S. Racković, F. Valdeira, 2023, Journal of Mathematics in Industry

Accurate and Interpretable Solution of the Inverse Rig for Realistic Blendshape Models with Quadratic Corrective Terms, S. Racković, C. Soares, D. Jakovetić, Z. Desnica, 2023, arXiv preprint

A Majorization-Minimization Based Method for Nonconvex Inverse Rig Problems in Facial Animation: Algorithm Derivation, S. Racković, C. Soares, D. Jakovetić, Z. Desnica, 2022, arXiv preprint

High-fidelity Interpretable Inverse Rig: An Accurate and Sparse Solution Optimizing the Quartic Blendshape Model, S. Racković, C. Soares, D. Jakovetić, Z. Desnica, 2023, arXiv preprint

Distributed Solution of the Inverse Rig Problem in Blendshape Facial Animation, S. Racković, C. Soares, D. Jakovetić, 2023, arXiv preprint