

Departament de Matemàtiques Facultat de Ciències - Edifici C Universitat Autònoma de Barcelona 08193 Bellaterra (Spain) Tel. +34 93 581 13 04 d.matematiques@uab.cat http://www.uab.cat/matematiques

To whom it may concern:

I am glad to recommend Mr. Victor Suesta for roles in data science and related fields. I had the opportunity to supervise him during his Final Year Project, titled "Optimization Theory for Wide Neural Networks," as part of his Degree in Mathematics. This work demonstrated his exceptional ability to tackle advanced mathematical concepts and apply them to modern machine learning challenges.

Mr. Suesta's project delved into foundational theories such as the neural tangent kernel, loss landscape analysis, and the double descent phenomenon in neural networks. His work was marked by a rigorous, analytical approach, as he dissected complex proofs, interpreted abstract models, and connected theoretical frameworks to broader implications in machine learning. His final report was both comprehensive and insightful, reflecting a deep understanding of how optimization dynamics shape the behavior of large neural networks.

What stands out about Mr. Suesta is his ability to abstract and synthesize complex ideas. He approached his project with intellectual curiosity, demonstrating a keen ability to connect theoretical insights to practical implications. This analytical mindset is a core asset in data science, where understanding model behavior, loss landscapes, and optimization trade-offs is key to solving ambiguous, real-world problems.

Mr. Suesta's background in mathematical optimization and theoretical machine learning equips him to contribute effectively to diverse data science teams, whether they are focused on model development, interpretability, algorithm design, or performance analysis. His capacity to learn and apply cutting-edge concepts, combined with his problem-solving skills and logical reasoning, makes him a versatile candidate who can adapt to varied challenges and contribute meaningfully in dynamic environments.

I am confident that Mr. Suesta will bring the same level of dedication and intellectual rigor to any data science position. If you require further information about his work or background, please do not hesitate to contact me.

Yours sincerely,

Toni Lozano Bagén

Assistant Professor Departament de Matemàtiques Universitat Autònoma de Barcelona e-mail: Antonio.Lozano.Bagen@uab.cat