Taha YASSINE

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SUMMARY

I received the engineering degree in computer science from the National Institute of Applied Sciences (INSA Rennes, France), and the M.Sc. degree in reseach in computer science from the University of Rennes 1 (Rennes, France), in 2020. I am currently pursuing the Ph.D. degree with INSA Rennes, IETR (Rennes, France) and b<>com (Rennes, France). My current research topics include signal processing, wireless communications and machine learning.

WORK EXPERIENCE

PhD student (b<>com) Oct. 2020 - present

Propose and develop deep learning models for different physical level tasks (channel estimation, beamforming, channel charting...) in the context of massive MIMO systems. The models are inspired and guided by principles derived from signal processing and wireless communications theory. Produce papers presenting the work.

Research internship (b<>com) Feb. 2020 - July 2020

Developped a deep learning model for channel estimation in the context of massive MIMO systems. The internship was a great introduction to doing research and an opportunity to get a foot in the door. Produced a paper presenting the work as well.

EDUCATION

2020 - present	PhD in wireless communications and machine learning with **INSA Rennes**, **IETR** and **b<>com**
2019	Erasmus exchange at **Newcastle University**
2015 - 2020	Engineering degree in computer science at **INSA Rennes**

PUBLICATIONS

Le Magoarou, Luc et al. (2022). "Deep Learning for Location Based Beamforming with Nlos Channels". In: *ICASSP 2022 - 2022 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pp. 8812–8816.

Yassine, Taha and Luc Le Magoarou (2022). "mpNet: Variable Depth Unfolded Neural Network for Massive MIMO Channel Estimation". In: *IEEE Transactions on Wireless Communications* 21.7, pp. 5703–5714.

Yassine, Taha, Luc Le Magoarou, et al. (2022). "Leveraging triplet loss and nonlinear dimensionality reduction for on-the-fly channel charting". In: *2022 IEEE 23rd International Workshop on Signal Processing Advances in Wireless Communication (SPAWC)*, pp. 1–5.

SKILLS

Programming	Python, Java, C/C++.
Frameworks/Libraries	PyTorch, NumPy, Matplotlib.