



# Self-Introduction

Hao ZHANG

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## About me...

My name is Hao ZHANG, I'm Chinese, I live in Paris now...

- In 2022, I completed my Specialized Master®'s degree in SMART SYSTEMS & IoT at CY Tech (formerly EISTI).
- Before pursuing this Specialized Masterr®'s degree, I graduated from Leonardo da Vinci Engineering School (ESILV), specializing in Computer Science, Big Data and Connected Objects (IBO) in the Research path with the Data Science option.
- I have two different backgrounds...



## Two different backgrounds





## In the healthcare sector

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- After my return, I worked in a Chinese pharmaceutical company, as a researcher in strategic analysis of the pharmaceutical industry.



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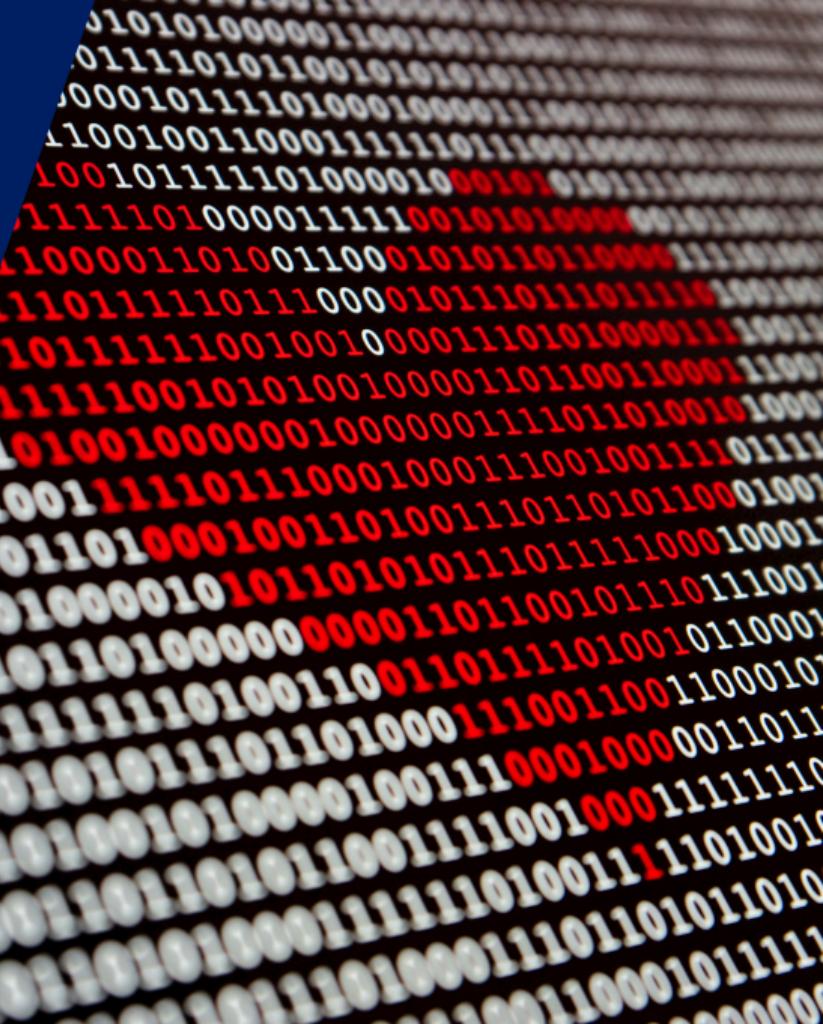
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- I got advice from a respected industry leader.
- Last but not least, I see a huge opportunity for unification and potential synergy in healthcare with megadata technologies.



## The start of learning data science

*Follow the trend and I'll go from there to further and further...*





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- 2020 - 2022 CY Tech (EISTI), Smart Systems & Internet of Things



## Internships in France

- CSTB, Intern in the development of economic simulation programs in Python
  - Development of a VBA economic simulation program using Python;
  - Optimization of the program with vectorization to improve the speed and efficiency of calculations.
- ELLIADD of UFC, Intern in ontology development and its semantic platform
  - Development of an ontology and a graphical database (Neo4j) in the field of digital humanities;
  - Development of intelligent services on a semantic platform based on an ontology-linked database.



# My offline learning practices (1)



Visual Comparison of Model Testing Effect under different types of neural networks



Visual Comparison of Model Testing Effect under different Convolutional Neural Networks Architectures

[https://github.com/RaphaelZH/Udemy\\_Data\\_Science\\_Courses\\_Learning\\_Outcomes\\_EN/](https://github.com/RaphaelZH/Udemy_Data_Science_Courses_Learning_Outcomes_EN/)



## My offline learning practices (2)

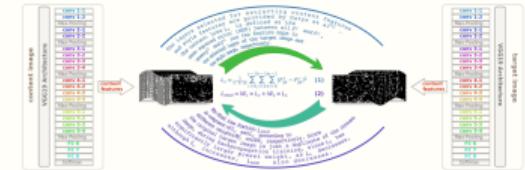


Visual Comparison of Style Transfer Effect at Different epochs of the Optimization Process

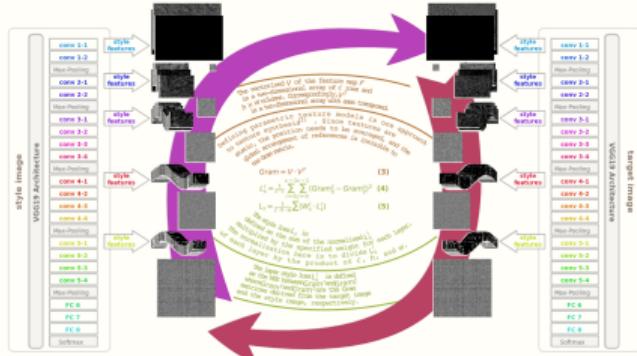
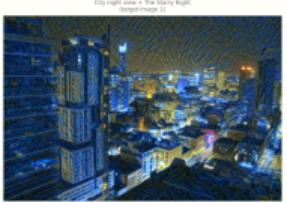
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# My offline learning practices (3)



11. L. Gatys, A. S. Ecker, and D. Bethge, "Image Style Transfer Using Convolutional Neural Networks," 2016 IEEE Conference on Computer Vision and Pattern Recognition (CVPR), Los Angeles, CA, USA, 2016, pp. 2414–2423, doi: 10.1109/CVPR.2016.75.



12. L. Gatys, A. S. Ecker, and M. Bethge, "Texture Synthesis Using Convolutional Neural Networks," in Advances in Neural Information Processing Systems, 2015, vol. 28. [Online]. Available: <https://proceedings.neurips.cc/paper/2015/hash/653237fa7031300d8f87a7e9ff97b7-Paper.pdf>

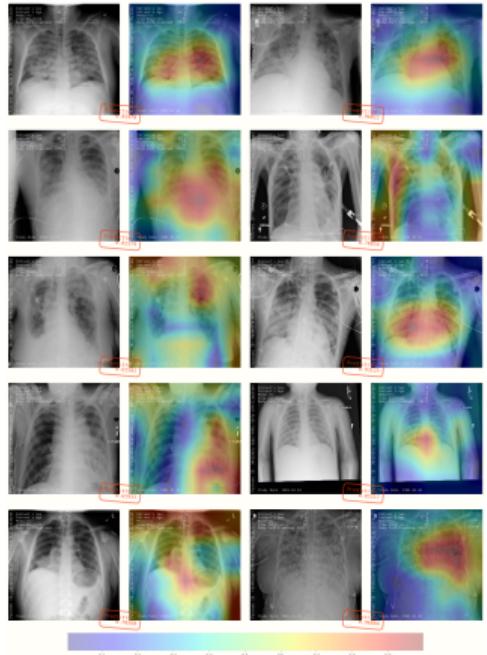
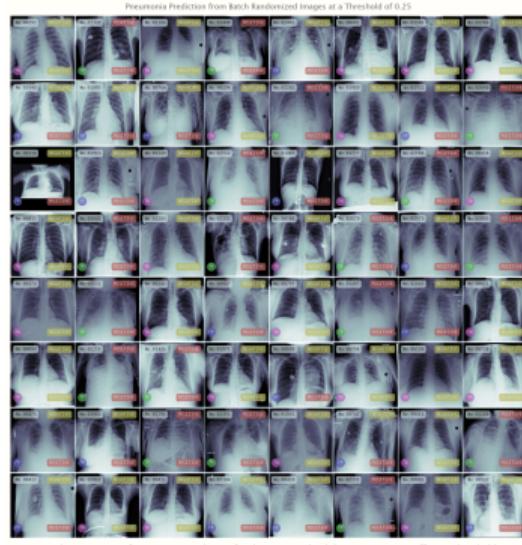
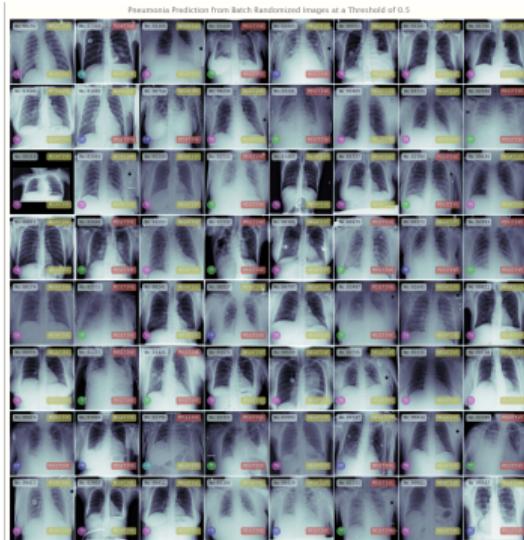


Schematic Diagram of Style Transfer Principle

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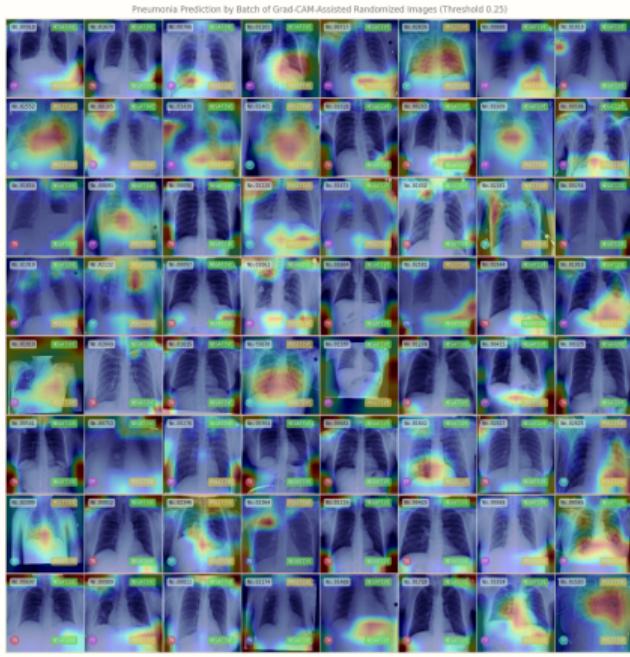
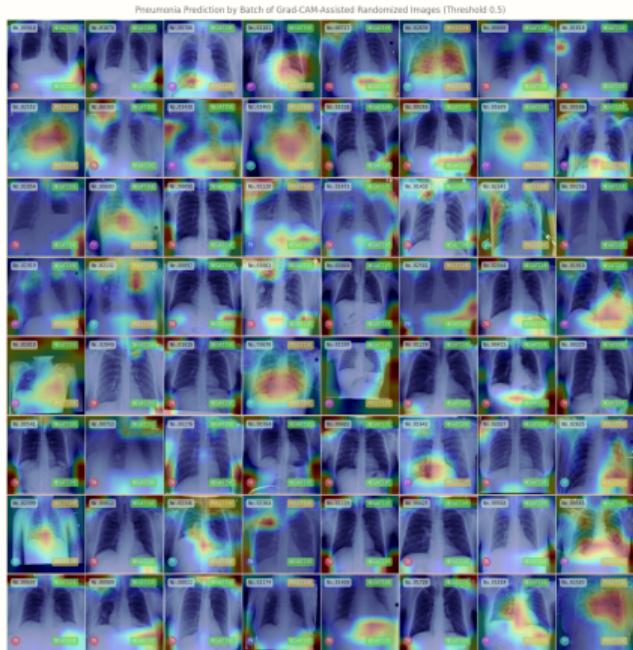
## My offline learning practices (4)



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## My offline learning practices (5)

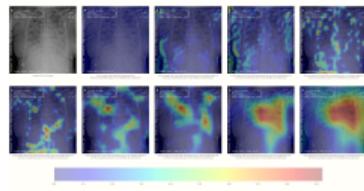
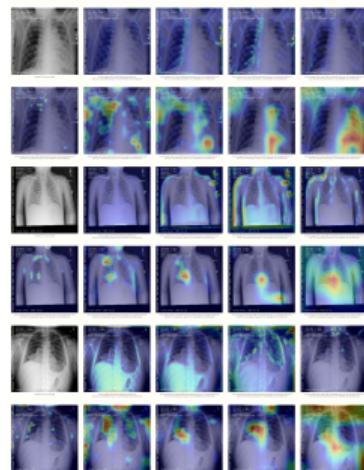
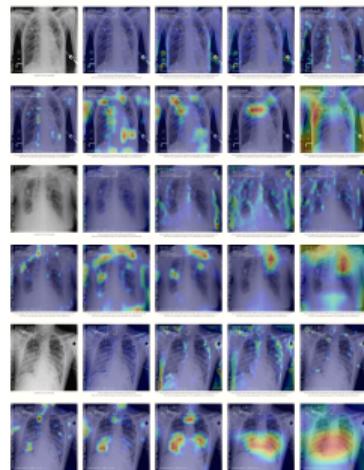
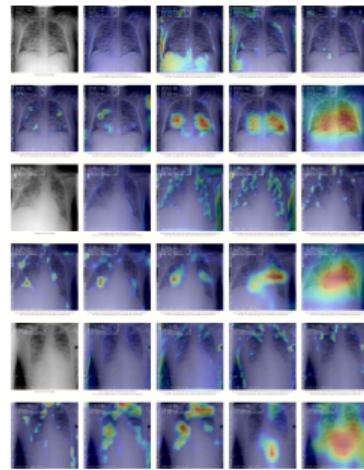


Visual Comparison of Pneumonia Prediction under Different Thresholds by Batch of Grad-CAM-Assisted Randomized Images

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## My offline learning practices (6)



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Thank you!