

EDUCATION

Université de Rouen <i>Master in Data Science and Engineering, highest honors, Valedictorian</i>	Rouen, France 2021-2023
Université de Rouen <i>Bachelor in Computer Science and Data Science, honors, Valedictorian</i>	Rouen, France 2020-2021
IUT de Vannes <i>2 Years University Diploma in Computer Science</i>	Vannes, France 2018-2020

CURRENT & PREVIOUS EMPLOYMENT

IT University of Copenhagen <i>Research Assistant, Department of Computer Science</i> <ul style="list-style-type: none">• I studied the presence of public medical datasets in scientific papers and created open-access tools based on the research• I assisted in the data collection or data processing of other lab projects• I defined and wrote a PhD project proposal on the evaluation of multi-modal datasets and models	Copenhagen, Denmark October 2023 – now
IT University of Copenhagen <i>Assistant Lecturer, Department of Computer Science</i> <ul style="list-style-type: none">• I prepare and give lectures to bachelor's students of the Project in Data Science course• I design the exercises for the practical sessions• I coordinate the teaching assistants during the practical sessions	Copenhagen, Denmark January 2024 – now
IT University of Copenhagen <i>Teaching Assistant, Department of Computer Science</i> <ul style="list-style-type: none">• I assisted students during practical sessions of the Data In the Wild Course• I assisted teachers in the preparation of the exercises	Copenhagen, Denmark October 2023 – January 2024
Capgemini Engineering <i>Data Scientist Intern, Medic@</i> <ul style="list-style-type: none">• I performed teeth detection, segmentation and numbering in X-ray dental panoramic to help diagnose rare diseases for both adults and children.• I compared the performances of Mask-RCNN and Detection Transformer (DETR)• I assessed the effect of different “classical” data augmentation techniques• I defined an algorithm to generate new dental panoramics using existing images and inpainting models• I used different generative models (GAN, diffusion models) to generate new teeth	Illkirch-Graffenstaden, France April 2023 – September 2023
IT University of Copenhagen <i>Research internship, Department of Computer Science</i> <ul style="list-style-type: none">• I studied the use of datasets in scientific papers on the segmentation of medical images• I identified and evaluated tools to collect scientific papers' information such as content and citations• I performed various NLP techniques to evaluate the organ focused in a paper	Copenhagen, Denmark March 2023 – April 2023
See-d <i>Developer intern</i> <ul style="list-style-type: none">• I developed a storage-related data analysis website with Python and a Qlik Sense dashboard• I improved existing features and developed new parts of both the website and the API such as the forecasting with auto-regressive models (ARIMA)• I was responsible for demonstrating the tool at internal meetings and helped prepare external demonstrations	Vannes, France April 2021 – July 2021

UNIVERSITY PROJECTS

Comparaison of U-Net and Segformer Architectures	Université de Rouen, 2022 – 2023
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- I compared the U-Net and the SegFormer architecture on the segmentation of cardiac structure in ultrasound images
- I worked in collaboration with a PhD student to extend my study to other segmentation tasks

Comparison of U-Net and Segformer Architectures

Université de Rouen, 2022 – 2023

- I compared the U-Net and the SegFormer architecture on the segmentation of cardiac structure in ultrasound images
- I worked in collaboration with a PhD student to extend my study to other segmentation tasks

Glaucoma detection with CNN

Université de Rouen, 2021 – 2022

- I classified eye fundus images for glaucoma detection with convolutional neural networks
- I evaluated the effect of different techniques for mitigating data imbalance, such as data augmentation, weighted loss and resampling

PUBLICATIONS

- Can Segformer be a true competitor to U-net for medical image segmentation? **T. Sourget**, S. N. Hasany, F. Mériaudeau, and C. Petitjean. In Annual Conference on Medical Image Understanding and Analysis, pages 111–118. Springer, 2023.
- Detection transformer for teeth detection, segmentation, and numbering in oral rare diseases: Focus on data augmentation and inpainting techniques, H. Kadi, **T. Sourget**, M. Kawczynski, S. Bendjama, B. Grollemund, and A. Bloch-Zupan. Accepted for publication in The 2023 International Conference on Computational Science and Computational Intelligence (CSCI'23).
- [Citation Needed] Data usage and citation practices in medical imaging conferences. **T. Sourget**, A. Akkoç, S. Winther, C. L. Galsgaard, A. Jiménez-Sánchez, D. Juodelyte, C. Petitjean, and V. Cheplygina. Submitted to Medical Imaging with Deep Learning, 2024. under review.

OTHER ACHIEVEMENTS

- Recipient of a DDSA visit fund of 1645€ in 2023 to work with Dr Veronika Cheplygina at the IT University of Copenhagen
- Recipient of the Graduate school MinMacs scholarship of 15 000€ (funded by the Normandy region) during both the first and second year of my Master's degree, giving access to funding, a supervisor and an immersion in laboratories
- Presentation of the work on the segmentation of cardiac ultrasound images at the GRETSI 2023
- Presentation of the work on the study of dataset usage and citations at the D3A Conference 1.0 2024
- Presentation of an introduction to dynamic graph neural networks at the Graduate School MINMACS reading group 2023.
- Volunteered in a children's tutoring group