

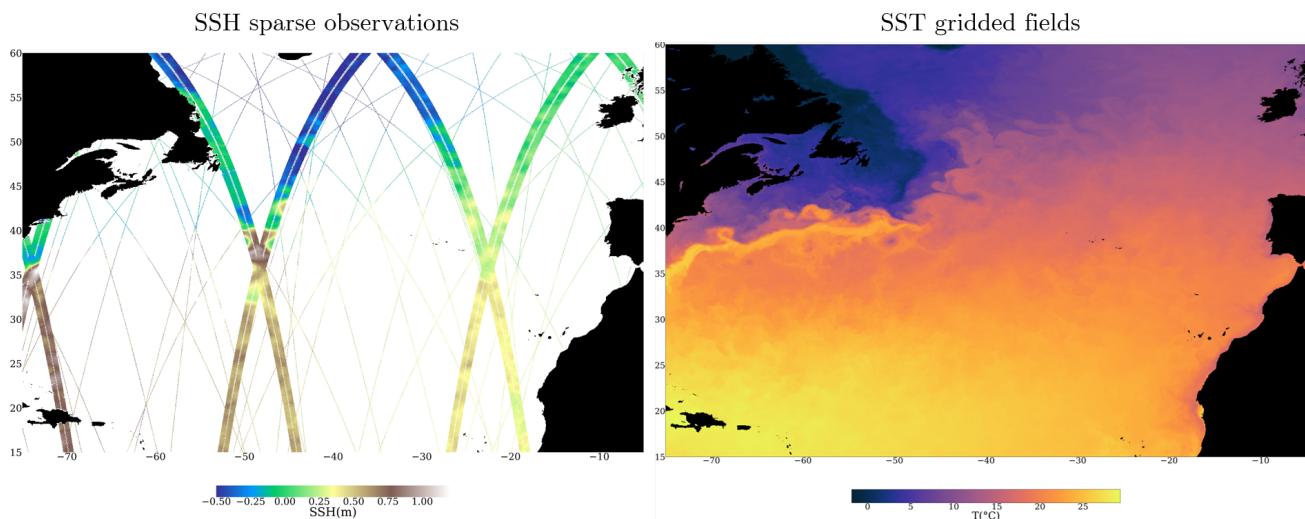


I am Ph.D. in computer science applied to oceanography, at Sorbonne University, LIP6, under the supervision of Dominique Béreziat and Anastase Charantonis. I am now working at [Amphitrite](#), as a computer vision R&D researcher.

I am interested in all research bridging geosciences and machine learning but I mainly study deep learning methods to reconstruct satellite data of the ocean surface with a particular focus on sea surface height and temperature.

During my Ph.D., ([manuscript](#)), ([slides](#)), I designed deep learning models to reconstruct the Sea Surface Height (SSH) using multivariate satellite observations, notably the Sea Surface Temperature (SST). If you have any question about similar work or related matters, feel free to contact me.

Contact: theo.archambault@amphitrite.fr, [Research Gate](#), [Semantic Scholar](#), [Google Scholar](#)



Publications

Journal

Garcia, P., Larroche, I., Pesnec, A., Bull, H., Archambault, T., Moschos, E., Stegner, A., Charantonis, A., Béreziat, D. (2025). ORCAst: Operational High-Resolution Current Forecasts. *Artif. Intell. Earth Syst.*, 4, e250002. [link](#) , [file](#)

Archambault, T., Filoche, A., Charantonis, A.A., Béreziat, D., & Thiria, S. (2024). Learning Sea Surface Height Interpolation From Multi-Variate Simulated Satellite Observations. *Journal of Advances in Modeling Earth Systems (JAMES)*. [link](#) , [file](#)

Thiria, S., Sorror, C., Archambault, T., Charantonis, A.A., Béreziat, D., Mejia, C., Molines, J.M., & Crépon, M. (2023). Downscaling of ocean fields by fusion of heterogeneous observations using Deep Learning algorithms. *Ocean Modelling*. [link](#) (ask me the file in an email)

Archambault, T., Charantonis, A.A., Béréziat, D., Mejia, C., & Thiria, S. (2022). *Sea surface height super-resolution using high-resolution sea surface temperature with a subpixel convolutional residual network*. Environmental Data Science. [link](#), [file](#)

Conference

Archambault, T., Filoche, A., Charantonis, A., & Béréziat, D. (2024). *Pre-training and Fine-tuning Attention Based Encoder Decoder Improves Sea Surface Height Multi-variate Inpainting*. VISAPP. [link](#), [file](#)

Archambault, T., Filoche, A., Charantonis, A.A., & Béréziat, D. (2023). *Multimodal Unsupervised Spatio-Temporal Interpolation of Satellite Ocean Altimetry Maps*. VISAPP. [link](#), [file](#)

Filoche, A., Archambault, T., Charantonis, A.A., & Béréziat, D. (2022). *Statistics-Free Interpolation of Ocean Observations with Deep Spatio-Temporal Prior*. ECML MACLEAN workshop. [link](#), [file](#)

Archambault, T., Filoche, A., Charantonis, A.A., & Béréziat, D. (2022). *Unlearned Downscaling of Sea Surface Height with Deep Image Prior*. ICLR AI for Earth Science Workshop. [link](#), [file](#)

Archambault, T., Charantonis, A., Béréziat, D., & Thiria, S. (2022). *SSH Super-Resolution using high resolution SST with a Subpixel Convolutional Residual Network*. Climate Informatics. [link](#), [file](#)

Preprint

Garcia, P., Larroche, I., Pesnec, A., Bull, H., Archambault, T., Moschos, E., Stegner, A., Charantonis, A., Béréziat, D. (2025). *ORCAst: Operational High-Resolution Current Forecasts*. ArXiv, abs/2501.12054v1. [link](#), [file](#)

Archambault, T., Filoche, A., Charantonis, A.A., Béréziat, D., & Thiria, S. (2023). *Unsupervised Learning of Sea Surface Height Interpolation from Multi-variate Simulated Satellite Observations*. ArXiv, abs/2310.07626. [link](#), [file](#)

Presentations

In conferences

EGU 2024: Oral presentation (on site): [slides](#), [abstract](#)

VISAPP 2024: Oral presentation (on site): [slides](#)

VISAPP 2023: Poster presentation (on site): [poster](#)

RFIAP 2022: Poster presentation (on site): [poster](#). It is an accepted resubmission of my work in Climate informatics 2022.

Climate Informatics 2022: Oral presentation (online): [slides](#).

In seminar and study groups

Formal-v2 launch day 2024 : Oral presentation (on site): [link](#) [slides](#)

Telecom Paris Seminar 2023: Oral presentation (on site): [slides](#)

Formal-v2 launch day 2023 : Poster presentation (on site): [link](#)

SAMA/SCAI study group 2022: Oral presentation (on site): [slides](#)