

# CURRICULUM VITAE - NGUYỄN TRƯỜNG AN

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## CONTACT

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## CURRENTLY

I am looking for a postdoc position with the interests in:

| *Water quality modelling in rivers and estuaries.*

| *Eutrophication, greenhouse gases emissions and biogeochemical processes.*

## EDUCATION

**PhD thesis in the Environmental Science** 11/2018-12/2021

University of Grenoble Alpes (UGA, France)

*Biogeochemical modeling in a tropical estuary and eutrophication management.*

**Master degree in Hydraulic** 09/2017-08/2018

Grenoble Institute of Technology (Grenoble INP, France)

*Modeling nutrient dynamics in the Saigon River Estuary, Vietnam.*

**Bachelor degree in Environmental management** 09/2011-02/2016

Ho Chi Minh City University of Technology (HCMUT, Vietnam)

*Antibiotic pollution in the Saigon River, Vietnam.*

## PROFESSIONAL EXPERIENCE

**Postdoctoral researcher (20 months)** 05/2022-02/2024

INRAE, l'Institut national de recherche pour l'agriculture, l'alimentation et l'environnement.

*Studying the evolution of carbonate system at Loire River by using high resolution datasets.*

**Job searching (3 months)** 01/2022-04/2022

After completing my doctoral contract, I applied for several postdoctoral positions in Europe.

**Doctoral contract (38 months)** 11/2018 – 01/2022

Institute of Environmental Geosciences (IGE), France.

*Water quality monitoring (nutrients, carbon, phytoplankton, greenhouse gases) and develop a biogeochemical model (1D reactive transport) for tropical estuaries.*

**PhD Application and vacation (5 months)** 07/2018-10/2018

Preparing and submitting applications for PhD programs in France. This time also included a brief period of vacation.

**Master program (6 months internship)** 08/2017-07/2018

Institute of Environmental Geosciences (IGE), France.

*Implementation of a nutrient dynamics model for the Saigon River using C language.*

**Principal Investigator (6 months)** 12/2016-08/2017

Young Investigator Project, HCMUT, Vietnam

*Design of a pilot scale constructed wetland and analysis of water samples.*

**Lab technician (18 months)****12/2015-06/2017**

Asian Center for Water Research (CARE-RESCIF), Vietnam.

*Water sampling and operation of ICP-OES analyzer, TOC-V.***Bachelor internship (6 months)****06/2015-12/2015**

Project: development of “passive sampling” for the analysis of antibiotics in river.

*Sampling and pretreatment of samples for antibiotics measurement.*

## COMPETENCES

## NUMERICAL

Extensive knowledge in Python, C &amp; C++ languages for water quality modelling.

## DATA ANALYSIS

Data analysis and statistical analysis with Python and R on large datasets.

## VISUALIZATION

Mapping and spatial analysis with QGIS and ArcGIS.

## LANGUAGES

**Vietnamese** (native)**English** (proficient, level B2)**French** (basic, level B1)

## PUBLICATIONS

## JOURNALS

1. Caracciolo, R., Escher, B. I., Lai, F. Y., Nguyen, T. A., Le, T. M. T., Schlichting, R., Tröger, R., Némery, J., Wiberg, K., Nguyen, P. D., & Baduel, C. (2023). Impact of a megacity on the water quality of a tropical estuary assessed by a combination of chemical analysis and in-vitro bioassays. *Science of The Total Environment*, 877(February), 162525. <https://doi.org/10.1016/j.scitotenv.2023.162525>
2. Garnier, J., Billen, G., G Laruelle, G., Le Gendre, R., Némery, J., Nguyen, A., Romero, E., Thieu, V., & Wei, X. (2023). Coastal marine system and estuary functioning is driven by the upstream river basin. In *Reference Module in Earth Systems and Environmental Sciences* (p. B9780323907989000093). Elsevier. <https://doi.org/10.1016/B978-0-323-90798-9.00009-3>
3. Nguyen, A. T., Dao, T. S., Strady, E., Nguyen, T. T. N., Aimé, J., Gratiot, N., & Némery, J. (2022). Phytoplankton characterization in a tropical tidal river impacted by a megacity: The case of the Saigon River (Southern Vietnam). *Environmental Science and Pollution Research*, 29(3), 4076–4092. <https://doi.org/10.1007/s11356-021-15850-x>
4. Nguyen, A. T., Némery, J., Gratiot, N., Dao, T. S., Le, T. T. M., Baduel, C., & Garnier, J. (2022). Does eutrophication enhance greenhouse gas emissions in urbanized tropical estuaries? *Environmental Pollution*, 303(September 2021). <https://doi.org/10.1016/j.envpol.2022.119105>
5. Camenen, B., Gratiot, N., Cohard, J. A., Gard, F., Tran, V. Q., Nguyen, A. T., Dramais, G., van Emmerik, T., & Némery, J. (2021). Monitoring discharge in a tidal river using water level observations: Application to the Saigon River, Vietnam. *Science of the Total Environment*, 761, 143195. <https://doi.org/10.1016/j.scitotenv.2020.143195>
6. Nguyen, A. T., Némery, J., Gratiot, N., Garnier, J., Dao, T. S., Thieu, V., & Laruelle, G. G. (2021). Biogeochemical functioning of an urbanized tropical estuary: Implementing the generic C-GEM (reactive transport) model. *Science of the Total Environment*, 784, 147261. <https://doi.org/10.1016/j.scitotenv.2021.147261>
7. Nguyen, T. T. N., Némery, J., Gratiot, N., Garnier, J., Strady, E., Nguyen, D.

P., Tran, V. Q., Nguyen, A. T., Cao, S. T., & Huynh, T. P. T. (2020). Nutrient budgets in the Saigon–Dongnai River basin: Past to future inputs from the developing Ho Chi Minh megacity (Vietnam). *River Research and Applications*, 36(6), 974–990. <https://doi.org/10.1002/rra.3552>

**8.** Noncent, D., Strady, E., Némery, J., Thanh-Nho, N., Denis, H., Mourier, B., Babut, M., Nguyen, T. A., Nguyen, T. N. T., Marchand, C., Desmet, M., Tran, A. T., Aimé, J., Gratiot, N., Dinh, Q. T., & Nguyen, P. D. (2020). Sedimentological and geochemical data in bed sediments from a tropical river–estuary system impacted by a developing megacity, Ho Chi Minh City—Vietnam. *Data in Brief*, 31, 105938. <https://doi.org/10.1016/j.dib.2020.105938>

**9.** Nguyen, T. T. N., Némery, J., Gratiot, N., Garnier, J., Strady, E., Tran, V. Q., Nguyen, A. T., Nguyen, T. N. T., Golliet, C., & Aimé, J. (2019). Phosphorus adsorption/desorption processes in the tropical Saigon River estuary (Southern Vietnam) impacted by a megacity. *Estuarine, Coastal and Shelf Science*, 227(August), 106321. <https://doi.org/10.1016/j.ecss.2019.106321>

**10.** Nguyen, T. T. N., Némery, J., Gratiot, N., Strady, E., Tran, V. Q., Nguyen, A. T., Aimé, J., & Payne, A. (2019). Nutrient dynamics and eutrophication assessment in the tropical river system of Saigon – Dongnai (southern Vietnam). *Science of the Total Environment*, 653, 370–383. <https://doi.org/10.1016/j.scitotenv.2018.10.319>

**11.** Nguyen, T. A. (2018). Antibiotics And Pesticides In Water And Sediments From Intensive Shrimp Farms In Southern Vietnam. *Vietnam Journal of Science and Technology*, 54, 146. <https://doi.org/10.15625/2525-2518/54/4B/12035>

**12.** Dinh, Q. T., Nguyen, T. A., Moreau-Guigon, E., Alliot, F., Teil, M. J., Blanchard, M., & Chevreuil, M. (2017). Trace-Level Determination of Oxolinic Acid and Flumequine in Soil, River Bed Sediment, and River Water Using Microwave-Assisted Extraction and High-Performance Liquid Chromatography with Fluorimetric Detection. *Soil and Sediment Contamination*, 26(3), 247–258. <https://doi.org/10.1080/15320383.2017.1276154>

**13.** Nguyen, A. T., Le, T. M. T., Tran, V. Q., Truong, V. N., Nguyen, L. T., Nguyen, P. H. T., & Nguyen, T. H. T. (2017). Effect of oxygen states in horizontal subsurface flow constructed wetlands on the removal of organic matter, nutrients, some metals and octylphenol. *VNUHCM Journal of Science and Technology Development*, 20(K9), Article K9. <https://doi.org/10.32508/stdj.v20iK9.1676>

**14.** Nguyen, T. A., Tam, L. T. M., Viet, T. Q., Viet, T. N., Luan, N. T., Minh, N. V., Trang, N. T. H., & Tuc, D. Q. (2017). Recommendation of optimal design and operation parameters for constructed wetland for sludge treatment based on the effect of hydraulic retention time, sludge loading rate and vegetation. *VNUHCM Journal of Science and Technology Development*, 20(K8), Article K8. <https://doi.org/10.32508/stdj.v20iK8.1669>

## CONFERENCES

**1.** T.A. Nguyen, et al., (2022). Spatial and temporal variation of greenhouse gas emissions in an urbanized tropical estuary (the Saigon River, Vietnam). *ECSA 59 Using the best scientific knowledge for the sustainable management of estuaries and coastal seas*, September 5-8, 2022, Kursaal, San Sebastian, Spain. Poster

**2.** T.A. Nguyen, et al., (2022). Eutrophication management scenarios in the Saigon River by using C-GEM, an estuarine biogeochemical model. *ECSA 59 Using the best scientific knowledge for the sustainable management of estuaries and coastal seas*, September 5-8, 2022, Kursaal, San Sebastian, Spain. Poster

- 3.**T.A. Nguyen, et al., (2022). Impact of anthropogenic inputs on greenhouse gas emissions in the tropical Saigon River Estuary. International Symposium on Water Sustainability & Green Technologies, November 25-26, 2022, Ho Chi Minh City, Vietnam. Poster
- 4.**T.A. Nguyen, et al., (2022). Modeling the seasonal nutrients dynamics and phytoplankton development in Saigon River Estuary, Vietnam. International Symposium on Ecohydraulics, July 4-8, 2022, Lyon, France. Poster
- 5.**T.A. Nguyen, et al., (2020). Modelling scenarios by C-GEM, an estuarine biogeochemical model. International Conference on Water, Megacities and Global Change, December 1-4, 2020, Paris (Web-Seminar), Vietnam. Oral
- 6.**T.A. Nguyen, et al., (2020). Evaluating estuarine responses to modification of nutrient loads from megacity by a generic reactive-transport model. International Symposium on Ecohydraulics, December 23-24, 2019, Lyon, France. Oral
- 7.**T.A. Nguyen, et al., (2019). Self-purification capacity of a tropical estuary using a generic reactive-transport estuarine model. Green Technologies for Sustainable Water, December 1-5, 2019, Ho Chi Minh City, Vietnam. Poster
- 8.**T.A. Nguyen, et al., (2019). Modelling nutrient dynamics in a tropical estuary under human pressure: case study of the Saigon tidal River (Southern Vietnam). International Conference on Water Resources and Coastal Engineering, April 25, 2019, Da Nang City, Vietnam. Oral
- 9.**T.A. Nguyen., et al., (2016). Analysis of antibiotic and pesticide residues in shrimp farm waters using passive sampling. SETAC Asia/Pacific Conference, September 16-19, 2016, Singapore. Oral

## REFERENCES

My references include supervisors of master's and PhD theses, as well as postdoctoral advisors.

Contact information for references is available upon request.