Curriculum Vitae - Nguyễn Trường An

Contact

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Currently

I am a postdoc researcher 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 (24 months) **05/2024-04/2026**

Institut Géosciences Environnement (IGE), Institut de recherche pour le développement (IRD)

TROPECOS project, Past, Present, and Future Greenhouse gases of Tropical Estuaries

Postdoctoral researcher (22 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 (4 months) **01/2022-04/2022**

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

Doctoral contract (37 months) **11/2018 – 12/2021**

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, 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 NguyenTruongAn_CVs

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 NguyenTruongAn_CVs for antibiotics measurement

Competences

Numerical

Extensive knowledge in Python, C & 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. Nguyen, A. T., Abril, G., Diamond, J. S., Lamouroux, R., Martinet, C., & Moatar, F. (preprint). Multidecadal trends in CO 2 evasion and aquatic metabolism in a large temperate river. EGUsphere, 2025, 1-27. 10.5194/egusphere-2025-1478
2. Le, T. M. T., Nguyen, T. A., Nguyen, T. T., Nguyen, T. T., Nguyen, P. D., Némery, J., & Baduel, C. (2025). Assessing Spatial Trends and Land Use Impacts on Surface Water Quality: A Case Study of the Saigon and Vam Co Rivers in Southern Vietnam. Case Studies in Chemical and Environmental Engineering, 101225.10.1016/j.cscee.2025.101225
3. Thi-Minh-Tam Le , Trung-Tin Nguyen, Truong-An Nguyen, Thi-Huyen-Trang Nguyen and Phuoc-Dan Nguyen (2025). Water Quality Assessment of Urban Canals in Ho Chi Minh City, Vietnam: Effectiveness of Renovation Efforts in Minimizing Pollution. Journal of Water Management Modeling. 10.14796/JWMM.S545
4. Diamond, J. S., Truong, A. N., Abril, G., Bertuzzo, E., Chanudet, V., Lamouroux, R., & Moatar, F (2025). Inorganic carbon dynamics and their relation to autotrophic community regime shift over three

decades in a large, alkaline river. Limnology and Oceanography. 10.1002/lno.70016

5. 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. 10.1016/j.scitotenv.2023.162525
6. 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. 10.1016/B978-0-323-90798-9.00009-3
7. 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. 10.1007/s11356-021-15850-x
8. 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). 10.1016/j.envpol.2022.119105
9. 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. 10.1016/j.scitotenv.2020.143195
10. 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. 10.1016/j.scitotenv.2021.147261
11. 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. 10.1002/rra.3552
12. 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. 10.1016/j.dib.2020.105938
13. 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. 10.1016/j.ecss.2019.106321

14. Nguyen, T. T. N., Némery, J., Gratiot, N., Strady, E., Tran, V. Q., Nguyen, A. T., Aimé, J., & Peyne, 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. 10.1016/j.scitotenv.2018.10.319
15. 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. 10.15625/2525-2518/54/4B/12035
16. 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. 10.1080/15320383.2017.1276154
17. 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. 10.32508/stdj.v20iK9.1676
18. 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. 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

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