# Shuhui Wang

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#### **Education**

Nov 2022 – ongoing	PhD of Computational Biology, Université Paris Dauphine & ESPCI-PSL, France Thesis Title: Leveraging Deep Learning Methods for the Prediction of Different Biological Interactions.	
Sep 2019 – Jul 2022	Master of Science in Applied Mathematics, Beijing Jiaotong University, China Thesis Title: A Class of Improved Whale Optimization Algorithms and Their Applications on Parameter Estimation Problems of Nonlinear Systems.	
Sep 2017 – Jul 2019	Bachelor of Engineering (double degree), Centralesupelec, France	
Sep 2015 – Jul 2017	Bachelor of Science in Statistics, Beijing Jiaotong University, China	

#### **Publications and Conferences**

2025	I.	. Wang, S., Allauzen, A., Nghe, P. & Opuu, V. A guide for active learning in synergistic drug	
		discovery. Scientific Reports 15, 3484 (2025).	
	2.	Wang, S., Allauzen, A., Nghe, P. & Opuu, V. Cell Fate Prediction Using Dose-Response	
		Autoencoder Model. (under preparation, plan to submit to Nature communication) (2025).	

- Wang, S., Allauzen, A., Nghe, P. & Opuu, V. Hypothesis-driven interpretable neural network for interactions between genes. bioRxiv (under review in PLOS computational biology) (2025).
- Zhang, C., Hu, L., Wang, S. & et al. Heat Tolerance-Associated circRNA3685 Regulates 2024 Apoptosis and Autophagy in Bovine Mammary Epithelial Cells via Sponging bta-miR-138. Journal of Agricultural and Food Chemistry 73, 1656–1671 (2024).
- Zhang, C., Wang, S., Hu, L. & et al. Analysis of CircRNA Expression in Peripheral Blood of 2023 Holstein Cows in Response to Heat Stress. International Journal of Molecular Sciences 24, 10150 (2023).
- 6. Tan, G., Wang, S., Vierge, V. & et al. An EEG Classifier to Discriminate Between Focused 2022 Attention Meditation and Problem-solving in 2022 IEEE International Conference on Systems, Man, and Cybernetics (SMC) (2022), 1954-1960.
  - 7. Wang, S., Hu, W., Riego, I. & Yu, Y. Improved surrogate-assisted whale optimization algorithm for fractional chaotic systems' parameters identification. Engineering Applications of Artificial Intelligence 110, 104685 (2022).
- Wang, S., Yu, Y. & Hu, W. Static and dynamic solar photovoltaic models' parameters estimation 202I using hybrid Rao optimization algorithm. Journal of Cleaner Production, 128080 (2021).
- 9. Lu, Z., Yu, Y., Wang, S. & et al. A fractional-order SEIHDR model for COVID-19 with inter-city 2020 networked coupling effects. *Nonlinear Dynamics*, 1–14 (2020).

### **Research Experience**

#### Project leader - CircRNA Profiling and CeRNA Construction

• Using the high-throughput sequencing results of circRNA (RNA in circular) to profile the character of circRNAs and to predict its potential function through network.

Sep 2018 – Jul 2019

# Project leader - Classifier for Meditation based on EEG and Machine Learning Method

• Developing an EEG classifier to discriminate between meditation and problem-solving mind states. It achieved an accuracy above 90%.

Sep 2016 – Jul 2017

#### Project leader - Detection of Mutated Genes

• Employing the bioinformatic methods to analyze the correlation between the production performance and mutated genes of lactating cows.

# **Teaching Experience**

Feb 2025 - Mar 2025

#### Teacher Assistant - Project of data analysis for graduates in French

• Teaching conceptions, tutoring, and marking.

Oct 2024 - Dec 2024

#### Teacher Assistant - Algorithm and programming for graduates in French

• Marking, tutoring, and assisting in the design of lessons.

# **Work Experience**

Sep 2021 - Oct 2022

#### AI Intern - Schlumberger, Beijing, China

• Using supervised learning and numerical methods to predict the mechanical formation based on well logging data.

#### **Honors**

Nov 2020	Third Prize – National Modeling Competition of Huawei
Apr 2017	Second Prize – Mathematical Contest in Modeling (MCM)
Apr 2017	First Prize – National Innovation Competition for Undergraduates

# Language Skills

Chinese	Native speaker	French	B2
English	IELST: 7.5; Gre: V(159), Q(168)	Arabic	Αı

## **Software Skills**

Programming   Python, Matlab	Statistics   R, SQL
Typography   MS office, MEX	Others   Photoshop, Adobe Illustrator