

## Basic Information

Name: Zhihua Zhong  
Email: zhong.z.af@m.titech.ac.jp  
*Mathematical and Computing Science Department, School of Computing*  
PhD of **Tokyo Institute of Technology**, Tokyo, Japan  
**TOEIC (English ability): 810/1000**  
**JLPT N1 (Japanese ability): 140/180**

## Education

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- **PhD of Artificial Intelligent, Tokyo Institute of Technology(TIT)**  
(Major GPA so far: 3.8/4.5) *Sep. 2022-*  
Research topic: Human flow pattern analysis in urban city based on big data  
Mentor: Prof. Misako Takayasu
- **Master of Computational Mathematics, Jinan University(JNU)** *Sep. 2019 - Jun. 2022*  
(Major GPA: 88/100, top 10%)  
Thesis: Machine learning prediction models for prognosis of critically ill patients after open-heart surgery  
Mentor: Prof. Juan Liu

## Project Experiences

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### Joint data analysis research with company Sony (2023-)

1: analyse the sales data of Sony's products, such as TV and camera, and predict the units and price of sales to solve the supply chain problem.

### Big data analysis on Medical Science data (2019-2022)

- 2: develop a machine learning model to predict the probability of gaining a certain disease based on the biochemical data from the patients. (**Publication 1**)
- 3-5: find the relationship between biochemical indexes, drug, and death ratio to give people a deeper understanding of the diseases. (**Publication 2-4**)

### Software and Website development (2020-2021)

- 6: develop a Windows 10 software for paper [1] based on C++ and Python.
- 7: develop a website to realise real-time prediction for patients, based on Java and Python

Zhong Z. (2020, September 2). ML-Prediction-Model. Github. (6 and 7 can be found in my Github)

URL: <https://github.com/Zhihua-PredictionModel/ML-Prediction-Model>

## Academic Article Publication

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As the first author:

[1] Zhong, Z., Yuan, X., Liu, S. et al. Machine learning prediction models for prognosis of critically ill patients after open-heart surgery [J]. Sci Rep 11, 3384 (2021).

As co-first author:

[2] Huang Y\*, Zhong Z\*, Liu F. The Association of Coagulation Indicators and Coagulant Agents With 30-Day Mortality of Critical Diabetics [J]. Clin Appl Thromb Hemost. 27:10760296211026385 (2021 Jan-Dec).

[3] Liu, S.\*, Zhong, Z.\* & Liu, F. Prognostic value of hyperuricemia for patients with sepsis in the intensive care unit [J]. Sci Rep 12, 1070 (2022).

[4] Gao M\*, Zhong Z\*, Yue Y, Liu F. Correlation between glycaemic variability and prognosis in diabetic patients with CKD. Endokrynol Pol. 73(6):947-953 (2022).

[5] Zhong Zhihua, Hideki Takayasu, Misako Takayasu. Electric circuit network description of urban human mobility based on GPS data (ready to publish)

## Award

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- Scholarship of Tokyo Tech: Cross the border! Tokyo Tech Pioneering Doctoral Research Project (2022, Doctor)
- Software Copyright for Project 6 (2021, Master, in China)
- China National Scholarship for graduate students (2021, Master, only for top 3% of students)