**Resume**

**Name in English (as in passport):** LAI (surname), ZHIJIAN (given names).

Name in Japanese: 頼 (surname), 志堅 (given names); or,ライ (surname), シケン (given names). Name in native alphabet, i.e., Chinese: 赖 (surname), 志坚 (given names).

**Gender:** male

**Date of Birth:** 11-February-1995

**Place of Birth:** Puyang, Henan, China

**Home Address and Country:** NO. 114, Tsukadahaitsu-B, 4-17-17, Kasuga, Tsukuba, Ibaraki, 305-0821, Japan

**Phone Numbers:** +81 070-1186-5012

**E-mail:** Primary E-mail: [laizhijian100@outlook.com](mailto:laizhijian100@outlook.com) Secondary E-mail: [laizhijian2014@gmail.com](mailto:laizhijian2014@gmail.com) Educational E-mail: [s2130117@s.tsukuba.ac.jp](mailto:s2130117@s.tsukuba.ac.jp)

**Education**

1. Degree of Master

* School name: University of Tsukuba
* Dates of attendance: 1-April-2019 ~ 25-March-2021
* School address: 1-1-1, Tennodai, Tsukuba, Ibaraki, 305-8577, Japan
* Telephone number: (+81)-029-853-2111
* School website: <https://www.tsukuba.ac.jp/en/>
* Degree: Master of Science in Policy and Planning Sciences.
* Major: Graduate School of Systems and Information Engineering,Master's Program in Policy and Planning Sciences. In particular, Engineering (Mathematical optimization).
* Year degree received: March, 2021
* Thesis topic: Optimization is the process of finding the best solution or the most suitable outcome for a given problem, often within a set of constraints or limitations. In mathematical terms, optimization involves finding the maximum or minimum of a function (objective function) with respect to one or more variables, subject to certain conditions or constraints. There are numerous optimization techniques and algorithms available to solve these problems, such as gradient descent, Newton's method, genetic algorithms, among others.

1. Preparing for entering Graduate School in Japan
   * Educational institution name: ARC Tokyo Japanese Language School
   * Dates of attendance: 5-July-2017 ~ 30-March-2019
   * School address: 2-23-10,Koraku, Bunkyo-ku, Tokyo, 112-0004, Japan
   * Telephone number: (+81)-3-5804-5811
   * School website: <https://www.arc.ac.jp/Tokyo/en/>
   * Major: Graduate School Preparation Class
2. Degree of Bachelor

* School name: Dongbei University of Finance and Economics
* Dates of attendance: 1-September-2013 ~ 5-July-2017
* School address: No. 217 Jianshan Street, Shahekou District, Dalian City, Liaoning Province, 116025, China
* Telephone number: (+86)-0411-84710221
* School website: <https://www.dufe.edu.cn/>
* Degree: Bachelor’s Degree of Management
* Major: Logistic Management
* Year degree received: July, 2017

1. High School Diploma

* School name: Puyang Oil Field No-1 High School
* Dates of attendance: 1-September-2010 ~ 30-June-2013
* School address: No.1 Liaoyuan Road, Puyang City, Henan Province, 457001, China
* Telephone number: (+86)-0393-4822372

**Employment History**

All work experience consists of temporary part-time jobs during my time studying in Japan, utilizing my spare time. I have not had any full-time jobs or internships, either in Japan or China.

* Employer name: Lawson - Tsukuba Kasuga 4-chome
* Dates of employment: January-2021 ~ December-2021
* Company address: 1-1-1, Kasuga, Tsukuba, Ibaraki, 305-0821, Japan
* Telephone number: (+81)-029-860-7577
* Company website: https://www.lawson.co.jp/
* Job title: Convenience store cashier
* Job description: Handling customer transactions, processing payments, and providing customer service.
* Employer name: 7-Eleven - Shinjuku NishiOchiai 1-chome
* Dates of employment: October-2018~ February-2019
* Company address: 1-31-14, Nishiochiai, Shinjuku City, Tokyo,161-0031, Japan
* Telephone number: (+81)-03-3565-1980
* Company website: http://www.sej.co.jp/
* Job title: Convenience store cashier
* Job description: Handling customer transactions, processing payments, and providing customer service.
* Employer name: Hamazushi - Takadanobaba Branch
* Dates of employment: October-2018~ September -2018
* Company address: 2−13 Primegate 2F, Takadanobaba, Shinjuku City, Tokyo,169-0075, Japan
* Telephone number: (+81)- 0570-081-446
* Company website: https://maps.hama-sushi.co.jp/jp/detail/4352.html
* Job title: Kitchen staff
* Job description: Various tasks related to food preparation, cooking, and maintaining a clean and sanitary kitchen environment

**Awards and Group Memberships**

* Fellowship from Support for Pioneering Research Initiated by the Next Generation (SPRING) --- Doctoral Student Support Project
* Membership of The Operations Research Society of Japan.

**Publications**

1. Lai Zhijian, Yoshise Akiko, A. Completely positive factorization by a Riemannian smoothing method. *Computational Optimization and Applications*, 83(3), 933-966 (2022). <https://doi.org/10.1007/s10589-022-00417-4>
2. Lai Zhijian, Yoshise Akiko, Riemannian Interior Point Methods for Constrained Optimization on Manifolds, *Discussion Paper Series (DPS) No.1381, Department of Policy and Planning Sciences, University of Tsukuba* (2022).

<https://infoshako.sk.tsukuba.ac.jp/~databank/pdf/1381.pdf>

**Conferences**

Oral presentations at international conference

1. Lai Zhijian, Yoshise Akiko, Riemannian Interior Point Methods for Constrained Optimization on Manifolds, *International Workshop on Continuous Optimization*, 2022-12. Online.
2. Lai Zhijian, Yoshise Akiko, Completely Positive Factorization via Orthogonality Constrained Problem, *2021 SIAM Conference on Optimization (OP21)*, 2021-07. Online.

Oral presentations at domestic (in Japan) conferences, symposiums, etc.

1. Lai Zhijian, Yoshise Akiko, Riemannian Interior Point Methods for Constrained Optimization on Manifolds, *2023 Spring National Conference of Operations Research Society of Japan*, Tokyo, 2023-03.
2. Lai Zhijian, Yoshise Akiko, On the Global Convergence of Riemannian Interior Point Method, *2022 Autumn National Conference of Operations Research Society of Japan*, 2022-09. Online.
3. Lai Zhijian, Yoshise Akiko, On the Global Convergence of Riemannian Interior Point Method, *Japan Society for Industrial and Applied Mathematics 2022 Annual Meeting*, Sapporo, 2022-09.
4. Lai Zhijian, Yoshise Akiko, Superlinear and Quadratic Convergence of Riemannian Interior Point Methods, *2022 Spring National Conference of Operations Research Society of Japan*, 2022-03. Online.
5. Lai Zhijian, Yoshise Akiko, Completely Positive Factorization via Orthogonality Constrained Problem and Application of Smoothing Method, *Kyoto University Mathematical Analysis Research Institute Research Meeting*, 2021-08. Online.
6. Lai Zhijian, Yoshise Akiko, Completely Positive Factorization via Orthogonality Constrained Problem, *2021 Spring National Conference of Operations Research Society of Japan*, 2021-03. Online.
7. Lai Zhijian, Yoshise Akiko, A New Approach to the Recognition Problem of Completely Positive Matrices, *Kyoto University Mathematical Analysis Research Institute Research Meeting*, 2020-08. Online.

**Travel history** Japan (July 2017); China (September 2018)