

# ZIJIE ZHANG | RESUME

Intention: *Research, Machine Learning*

**Status:** M.A. in Mathematics, Postgraduate

**Fields:** Machine Learning, Computational mathematics, Data Science

Madison, WI, United States

[github.com/z-zijie](https://github.com/z-zijie)

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## EDUCATION

**Graduated as M.A. in Mathematics** - University of Wisconsin-Madison

MAY 2021

- Interest in Computational mathematics, Data Science, Machine Learning and Stochastic Analysis
- GPA: 3.88/4.0

**Semester Abroad** - University of Wisconsin-Madison

SEP 2019 - MAY 2020

- Interest in Applied mathematics and Statistical Learning
- GPA: 3.375/4.0

**Graduated as B.S. in Statistics (MAY 2020)** - Nanjing University

SEP 2016 - MAY 2019

- GPA.Cumulative: 3.95/5 · GPA.Major: 3.91/5

## RESEARCH

**NANJING UNIVERSITY FINANCIAL INNOVATION LAB** - Nanjing, JS, China

Sep 2018 – Dec 2018

- HEAD UNDERGRAD RESEARCH
- This was a research experience about Algorithm design in Blockchain topic.
- Designed a conjugated routing and account balancing algorithm for high-speed transaction as a team member, and articulated a paper.
- Implemented simulation and numerical optimization with MATLAB on Tianhe HPC, making success rate over 90%.
- A paper produced by this project (including me), "Photon State-Channel Architecture with AI Routing Optimization", has been accepted by the 2018 CCF Blockchain conference.

**INTERDISCIPLINARY CONTEST IN MODELING** - Nanjing, JS, China

Feb 2018

- Designed a model to decide the number, distribution and timeline of Tesla destination charging and supercharging stations.
- Use the Queuing Model to figure out the relationship between the expected waiting time and arrival rate.
- A Linear Regression Model was used to predict the number of electric vehicles.
- A paper produced by this project was awarded the Honorable Mention in ICM.

## EXPERIENCE

**TRANSLATOR** - University of Wisconsin-Madison

NOV 2020

- Provide interpretation services for Nanjing University delegation.
- Participated and interpreted the biomedical cancer detection technology exchange meeting with Exact Sciences.
- Accompanied to visit Discovery Building, Research institute in Madison, Wisconsin.

## COURSEWORK HIGHLIGHTS

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**Mathematics** Real Analysis • Complex Analysis • Functional Analysis  
Methods of Applied Mathematics I & II • Methods of Computational Mathematics I & II  
Operations Research • Modern Algebra • Topics in Applied Math

**Statistics** Statistical Learning • Stochastic Processes • Mathematical Statistics  
Multivariate Statistical Analysis • Time Series Analysis • Risk Statistics

**Computer Science** Pattern Recognition • Data Mining • Machine Learning

## SKILLS

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### PROGRAMMING

Python • Matlab • C • C++ •  $\text{\LaTeX}$   
R • Shell • Fortran(w/ mpi) • Octave  
*Familiar:* Java • Assembly • MySQL

### SPOKEN & WRITTEN

Fluent: English  
Native: Chinese