

# JINHE ZHANG

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## EDUCATION

### Jilin University

BE, Software Engineering; GPA: 91.47/100, Ranking: 2/345

Jilin, China

Sep. 2019 – July 2023

## RESEARCH INTERESTS

Machine Learning, Data Mining, Bioinformatics, Health Informatics

## EXPERIENCE

### Health Informatics Lab

Research Assistant, Mentor: Prof. Fengfeng Zhou

Jilin University

Apr. 2020 – Present

- \* **Obtained programming experience in Python & R** primarily regarding scikit-learn.
- \* **Feature Selection Algorithm:** Designed a feature selection algorithm suitable for Methyome Biomarkers binary classification problem.
- \* **Technical Report:** Implemented the selection algorithm in a python package and performed methylation biomarker prediction.
- \* **Estimation:** Estimated Immune cell fractions from Bulk RNA Sequencing data using Deconvolution Algorithm.

### Machine Learning Lab

Research Assistant, Mentor: Prof. Lü Shuai

Jilin University

Oct. 2020 – Present

- \* **Mainly Focus on Deep Reinforcement Learning, Sparse Reward Problems.**
- \* **Working on a Paper about Off-Policy Maximum Entropy Deep Reinforcement, Soft Q-learning and Soft Actor Critic.**

## SELECTED PROJECTS

**A Bot for Go Game (Game Theory & Heuristic Algorithm):** Designed a bot program with extremely high win ratio in Go game using Monte Carlo tree search(MCTS).

**Smart Snake (Search Algorithm):** Designed a bot using alpha-beta pruning & memory-enhanced test driver.

**A Shopping Website (bootstrap):** Designed and implemented a shopping website.

**A Pipeline:** Participated in building a pipeline for the lab.

## Awards & Honors

- First Class Scholarship, Jilin University
- Outstanding Undergraduate, Jilin University
- Meritorious Winner, Mathematical Contest In Modeling, MAA

## SKILLS

**Languages:** C++, C, Java, JS, Python, R, CSS

**Operating System:** Linux, UNIX

**Database System:** Oracle, DB2

**Platforms:** TensorFlow, Gym, OpenAI\*

**Packages:** Pytorch, NumPy, Pandas, Scikit-learn

## SELECTED COURSE

Data Structure 95/100    Algorithm Analysis 94/100    Principles of Operating System 89/100

Linear Algebra 98/100    Discrete Mathematics 92/100    Calculus III 94/100    Probability and Statistics 93/100