Zhaojin Wen

(+1) 510-859-5468 · zhaojinwen@berkeley.edu · San Diego, CA

Education

University of California, Berkeley Aug.2021 - Dec.2022
Master in Statistics, GPA: 3.93/4.0

Nanjing University Sep.2016 - Jun.2020
Bachelor of Science in Statistics, Elite Program

University of California, Berkeley Aug.2018 - Dec.2018
Department of Statistics, Exchange Student, GPA: 4.0/4.0

Course with Distinct:

Game Theory (A+), Efficient Algorithms and Intractable Problems (A), Data Structure (Java) (A), Linear Models(A), Analysis of Time Series (A), Financial Engineering (A+)

Skills

- **Languages:** Python, Java, R, C++, SQL, JavaScript
- **Technologies/Frameworks:** Linux, Bash, Shell, Hadoop, Oracle, Spark, Google Cloud, Git
- **Machine Learning Frameworks:** PyTorch, TensorFlow, Cloud, Scikit-learn, Keras

Research

Nanjing University, Research Assistant in Reinforcement Learning Sep.2020 - Mar.2021

- Propose a theoretic guideline for designing the sampling distribution of replay buffer to boost performance of off-policy reinforcement learning, which outperforms existing SOTA, such as PER, TCE.
- Reproduced Soft Actor Critic (SAC) and Proximal Policy Optimization (PPO) Algorithms in reinforcement learning, explored how TD(n) and TD (lambda) influence variance and bias.

Work Experience

pSemi Corporation, Data Engineer II (AI & ML) Feb.2023 - Present

- Currently working on AI & ML based wafer failure pattern classification.
- Currently working on the time series data analysis for contact resistance metrics, aiming to design an adaptive probe card cleaning algorithm.
- Automated high-resolution wafer map generation and built a JavaScript interface for visualization.

China Asset Management Co., Ltd., Quantitative Researcher Intern Jun.2022 - Aug.2022

- Implemented NLP algorithms to enhance asset allocation strategies, developed a Transformer-based model for portfolio management, achieved Sharpe ratio of 2.8.
- Implemented Time2Vec embedding to capture temporal signal, modified the input of encoder and decoder to capture both local pattern and long-term dependencies.
- Deployed a LSTM model to streamline multi-factor stock selection processes.

DIDI Global, Inc., Machine Learning Engineer Intern May.2021 - Aug.2021

- Conducted extensive research on few-shot learning algorithms. Implemented Unsupervised Data Augmentation (UDA) techniques to improve model performance and data efficiency, which increased the prediction AUC from 0.68 to 0.72.
- Independently developed a Deep & Cross Network (DCN) model from scratch in TensorFlow.

Baidu, Inc., Quantitative Researcher Intern Mar.2020 - Sep.2020

- Developed a reinforcement learning (Q-learning and multi-armed bandit) based automated investment planning model, which can achieve 8% return in 5 month.
- Employed object-oriented programming (OOP) principles in Python to calculate and encapsulate critical financial indicators (e.g., KDJ, BOLL) for stocks.
- Developed Shell scripts in Linux to automate the production of monthly reports for consumers.