

Roger Zhe Li

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SUMMARY

Extensive (10 years) industrial work, research, and internship experience in multiple domains of data science including recommender systems, computer vision, multi-modality, medical image/clinical record processing, and supply chain management. PhD in Computer Science with a focus on recommender systems. Authored over 10 papers in recommender systems and machine learning.

WORK EXPERIENCE

Senior Data Scientist/Product Owner, Team Lead adidas, Amsterdam, NL, Jan 2022 - Present

- **Led** 3-4 data scientists/machine learning engineers/data engineers for visual feature extraction of 800k+ adidas products using self-supervised learning (MoCo). Improve the performance of visual features by 9%;
- Used GAN-based technology (pix2pixHD) to **generate** predicted product images from 60k+ design sketches;
- Supervised the project of collecting the metadata of over 7 million adidas products from 2009 to 2025;
- Implemented the **first** B2B cross-sell (bundle) recommendation product in adidas based on retail data;
- Implementing the rule-based container offloading prioritization algorithm;

PhD Researcher, Fairness & Ranking in Recommendation TU Delft, Delft, NL, Sep 2017 - Jan 2022

- Improved the user fairness of recommender systems by mitigating the difference and discrimination caused by low user activeness and niche tastes, with two full papers accepted to WSDM'21 and ICTIR'23;
- Work on the optimization of recommender systems based on evaluation metrics. Proposed a state-of-the-art method optimizing for a specific metric (RBP), and got the work published at SIGIR'21;
- Supervised one MSc thesis in video captioning based on seq2seq models (in collaboration with IBM) and several bachelor literature review projects.

EDUCATION

2017 - 2022	PhD in Computer Science	TU Delft, Netherlands
2014 - 2017	MSc in Information & Communication Engineering (cum laude)	Tianjin University, China
2010 - 2014	BSc in Information & Communication Engineering	Zhejiang University, China

SKILLS

Programming Languages	Python, MATLAB, Verilog HDL, C, \LaTeX
Data Processing & Manipulation	PySpark, PostgreSQL, NoSQL (LMDB), Pandas
Data Science	Statistical machine learning, predictive deep learning (CNN, RNN, MLP), GenAI (GAN, AutoEncoders, transformers, stable diffusion), self-supervised learning, information retrieval, recommender systems, computer vision, natural language processing, PyTorch, data visualization (Matplotlib, ggplot2)
Cloud Environment	DataBricks, AWS SageMaker, Slurm-based HPC
Soft & Others	Project management, Agile (Scrum, Kanban, Jira, Confluence), data governance, GDPR compliance, OKR planning, leadership, tech training, tech- and business-facing communication, literature review
Language	Chinese (native), English (C2), Dutch (A2)

SELECT PUBLICATIONS (FULL LIST ON [GOOGLE SCHOLAR PROFILE](#))

1. R. Z. Li et al., "Mitigating mainstream bias in recommendation via cost-sensitive learning," in ICTIR'23.
2. R. Z. Li et al., "New Insights into Metric Optimization for Ranking-based Recommendation," in SIGIR'21.
3. R. Z. Li et al., "Leave No User Behind: Towards Improving the Utility of Recommender Systems for Non-mainstream Users," in WSDM'21.