

# Waylon Li

waylon.li@ed.ac.uk | [waylonli.com](http://waylonli.com) | [github.com/waylonli](https://github.com/waylonli)

## EDUCATION

---

<b>University of Edinburgh (1st year scholarship awarded)</b> <i>PhD candidate in AIAI, School of Informatics   Supervised by Prof. Tiejun Ma</i>	Edinburgh, United Kingdom <i>Feb. 2023 – Feb. 2027 (expected)</i>
<b>University of Edinburgh (Distinction)</b> <i>Master by Research in ILCC, School of Informatics   Supervised by Prof. Shay Cohen</i>	Edinburgh, United Kingdom <i>Oct. 2021 – Oct. 2022</i>
<b>University of Edinburgh (First Class Degree)</b> <i>Bachelor of Science in Artificial Intelligence, School of Informatics</i>	Edinburgh, United Kingdom <i>Aug. 2018 – June 2021</i>
<b>South China University of Technology</b> <i>Bachelor of Science in Applied Mathematics, School of Mathematics</i>	Canton, China <i>Aug. 2016 – July 2018</i>

## PUBLICATIONS

---

TSPRank: Bridging Pairwise and Listwise Methods with a Bilinear Travelling Salesman Model.  
Weixian Waylon Li, Yftah Ziser, Yifei Xie, Shay B. Cohen, Tiejun Ma. To appear in ACM SIGKDD 2025.

Risk Ranking in Retail Trading: Leveraging Algorithms to Predict Profitability and Behaviour.  
Weixian Waylon Li, Tiejun Ma. In submission to top journal.

SynthRank: Synthetic Data Generation of Individual's Financial Transactions Through Learning to Ranking.  
Weixian Waylon Li, Mengyu Wang, Carsten Maple, Tiejun Ma. AI in Finance for Social Impact @ AAAI 2024.

BERT Is Not The Count: Learning to Match Mathematical Statements with Proofs. Weixian Waylon Li, Yftah Ziser, Maximin Coavoux and Shay Cohen. EACL 2023 (long paper).

## CONFERENCES

---

Economics of Financial Technology Conference 2024	session chair	June 2024
Annual Meeting of the Association for Computational Linguistics (ACL) 2024	reviewer	Feb. 2024
TSDiP Workshop @ Warwick University	presenter	Jan. 2024
Conf. on Empirical Methods in Natural Language Processing (EMNLP) 2023	reviewer	July 2023
TSDiP Workshop @ Warwick University	attendee	July 2023
Conf. of the European Chapter of the ACL (EACL) 2023	presenter	May 2023
Conf. on Empirical Methods in Natural Language Processing (EMNLP) 2022	reviewer	Aug. 2022
Conf. on Empirical Methods in Natural Language Processing (EMNLP) 2021	attendee	Nov. 2021
ACL-IJCNLP 2021	attendee	July 2021
Annual Conf. of the North American Chapter of the ACL (NAACL) 2021	attendee	June 2021
World Artificial Intelligence Conference 2019	attendee	Aug. 2019
Huawei Developer Conference 2019	attendee	Aug. 2019

## PROJECTS

---

### Retrieval-Augmented Generation System Research | *Huawei Technologies R&D (UK) Ltd*

June 2024 – Present

- Aim to improve the performance of the retrieval-augmented generation system as academic research assistants.

### Discriminative Training of LPCFGs | *University of Edinburgh*

June 2020 – April 2021

- Supervised by Dr. Shay Cohen.
- Turned the spectral learning algorithm of syntactic parsing to a neural like model.
- Applied the tensor form of inside-outside algorithm to build a constituent parser.

## EXPERIENCE

---

### **RAG Intern Researcher**

*Huawei Technologies Research & Development (UK) Ltd - 2012 Laboratories*

May 2024 – Present

*United Kingdom*

- Working on RAG related research project.

### **Research Assistant**

*The Alan Turing Institute*

June 2022 – Jan. 2024

*United Kingdom*

- Working on the topic of “Synthetic Data Generation for Finance and Economics”.
- Collaboration with University City College London (UCL) on time series financial data generation.

### **System Engineer Internship**

*International Business Machines Corporation (IBM)*

July 2019 – Sep. 2019

*Canton, China*

- GF Bank Z14 mainframe upgrade project: helped with wiring installation and switching the Hardware Management Console (HMC).
- Chaozhou Sanhuan IT Consultation: attended the first meeting with Chaozhou Sanhuan as a member of the consultation team.
- Canton Mobile Server Room Maintenance: helped maintain the server models including Power 780, S814 servers, DS 8870, 8880 storages.

### **Data Platform Engineer**

*China Unicom*

May 2019 – July 2019

*Canton, China*

- Managed the daily maintenance of the big data platform and helped with the security upgrade project.
- Participated in the internal Spark computing framework training.

## TEACHING

---

2023-2024	Introductory Applied Machine Learning	Teaching Assistant	University of Edinburgh
2023-2024	Natural Language Understanding	Demonstrator	University of Edinburgh
2023-2024	Introduction to Algorithms and Data Structures	Marker	University of Edinburgh
2022-2023	Introductory Applied Machine Learning	Teaching Assistant	University of Edinburgh
2021-2022	Introductory Applied Machine Learning	Tutor, Demonstrator	University of Edinburgh
2021-2022	Foundation of Natural Language Processing	Demonstrator	University of Edinburgh

## TECHNICAL SKILLS

---

**Programming Languages:** Python, Java, C/C++

**Deep Learning:** PyTorch, Huggingface Transformers, NLTK, Pandas, NumPy, Matplotlib

**Version Control:** Git, GitHub, GitLab

**Operating System:** Linux, Mac OS, Windows