LINGYU LI

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EDUCATION BACKGROUND

HAINAN UNIVERSITY Sep 2019 - Jun 2023
Bachelor of Engineering (Expected) *Hainan, CN*

- Major: Software Engineering (Big Data)
- GPA: 3.84/4.0 (Top 2.1%) Average Score: 91.77/100
- Main curriculum: Higher Mathematics, Linear Algebra, Probability and Statistics, Discrete Mathematics, Operating System, Compiler Theory, Database System, Algorithm Analysis and Design

UNIVERSITY OF CALIFORNIA - BERKELEY Aug 2022 - May 2023
Exchange student *Berkeley, CA*

- GPA: 4.0/4.0
- Relevant Coursework: CS61B: Data Structures (Java), CS88: Computational Structures in Data Science(Python), CS170: Efficient Algorithms and Intractable Problems, CS189: Introduction to Machine Learning

PAPERS & PATENTS

- Li, DS., **Li, LY.**, Li, KY., Yang, QL., Yao, JY., Tan, YY., (2022). MSIP:Study on multi-source infection pattern mining algorithm in four-dimensional spacetime. *The 19th IEEE International Conference on Ubiquitous Intelligence and Computing (UIC 2022).* (Accepted)
- Zhang, JY., Ding, Y., Liu, J., Li, J., Li, PR., Lu, TS., Li YW., Yang, LY., Zhao, XQ., **Li, LY.**, (2021). *P.R.C. Patent No.CN112665927A.* Beijing: China National Intellectual Property Administration

RESEARCH & PROJECTS

MSIP: Study on multi-source infection pattern mining algorithm in 4D spacetime Jan 2022 - Nov 2022
Research Intern, Hainan University *Supervisor: Dr. Deshun Li*

- Modeled the problem of the mining of dynamic multi-source infection events in real four-dimensional spacetime as the multi-source infection pattern (MSIP) model, which considered multi-source infection, movement trajectory, and spatio-temporal dimension at the same time.
- Proposed infection pattern mining algorithm based on opportunity (MABO) under the MSIP model.
- Conducted experiments on a real-life dataset and demonstrated the effectiveness of the proposed algorithm; experiment results proved the proposed algorithm successfully mined possible infection events and accurately imitated the real environment.
- Optimized the algorithm with sliding window.
- Visualized the result of spacetime infection pattern with Echarts.

Real-Time Processing, Analysis and Visualization of Big Data from Blog Search Engine Based on Storm and Kafka Frames Dec 2021 - Jan 2022
Team Leader, Hainan University

- Developed basic search engine with Spring Boot, Lucene, and WebMagic to provide key functions of keyword searching; deployed front-end site to Tomcat and Nginx.
- Built a dataset with 50K+ data points; individual contributions include: Data crawling, pre-processing, and cleaning.
- Used Kafka and Storm for real-time data analysis and persisted the results to MySQL database.

Build Your Own World (BYOW) Nov 2022 - Dec 2022
Curriculum Project, University of California - Berkeley

- Used Queue, Graph and shortest-path algorithm to design an engine to be capable of random production of a 2D world.
- Added the ability for the user to actually interact with the world, save the progress and load it later.
- Practiced Object-oriented programming, software engineering and peer reviewing.
- Video demo: https://youtu.be/hd5-LKvEQbM

INTERNSHIP AND EXTRACURRICULAR PRACTICAL EXPERIENCE

Digital Hainan Feb 2021 - Mar 2021
Internship of Data Analysis in Big Data Department

- Acquired theoretical and practical knowledge about Alibaba Cloud platform, data collection, cleaning, modeling, storage, visualization, data tagging and user profiling.
- Mined user behaviors, preferences, and basic information to produce user tags to support business scenarios.
- Used SQL for data analysis and processing.

Boao Forum for Asia Annual Conference 2021 Mar 2021 - Apr 2021
Volunteer in Subforum at Free Trade Port

- Referred guests to appropriate team members, community agencies and organizations.
- Collaborated with team leaders and attendees to make logistical resources available to those in need.

HONORS AND AWARDS

Xu Wu Fellowship, Hainan University (Top 1%) 2022
3^{rd} Award,15^{th} China Undergraduate Computer Design Contest –Big Data Development Theme 2022
1^{st} Award,7^{th} China Collegiate Computing Contest -Group Programming Ladder Tournament, Hainan Province 2022
3^{rd} Award,12^{th} China Undergraduate Service Outsourcing Creative Start-up Competition, East Regional 2021
Premier Scholarship, Hainan University (Top 2%) 2021
Brilliant Volunteer of Boao Forum 2021
2^{nd} Award,National Undergraduate Mathematics Competition, Hainan Province 2020

SKILLS

Programming Languages: Java, Python, SQL, C, C++, Hive
Framework: Storm, Kafka, Sqoop, Flume
Tools/Envirnonment: Git, Linux, LaTeX
Languages: Mandarin (Native), English (Fluent)