

# HONGZHEN LIANG

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## EDUCATION

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The Ohio State University	<i>September 2020 - December 2022</i>
Bachelor of Science in Computer Science and Information	GPA: 3.767/4.0
NanJing Normal University	<i>September 2019 - July 2020</i>
Bachelor of Science in Computer Science	
South China Normal University	<i>September 2018 - July 2019</i>
Bachelor of Engineering in Computer Engineering	

## RESEARCH EXPERIENCE

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Flashnet: Reducing Tail Latency of Modern Storage System *March 2022 - present*  
*Undergraduate Research Assistant, Supervisor: Prof. Haryadi S. Gunawi of University of Chicago.*

- Integrated and refactored the codebase and architecture of LinnOS and IONet to build an automated test pipeline for research
- Introduced LSTM, Random Forest and CRF models into the FlashNet architecture and reduced the FNR (False Negative Rate) by more than 20%
- Identified the imbalance learning problem and utilized the under sampling technique, which successfully accelerated the training speed to another magnitude
- Justified the continual learning technique's effectiveness and conducted multiple data visualizations to intuitively illustrate the research results

Extended Research of ZebraConf *September 2021 - March 2022*  
*Undergraduate Research Assistant, Supervisor: Prof. Yang wang & Prof. Michael D. Bond of The Ohio State University*

- Developed an innovative safe and efficient method to test reconfiguration of running heterogeneous Hadoop clusters with diverse parameter and classify error types in the node communications
- Manually troubleshoot high-risk parameters of online heterogeneous Hadoop systems and resolve synchronization issues by modifying the source codes

Movement Correction Training System Based on Myoelectric *April 2019 - April 2020*  
*National Innovation and Entrepreneurship Project*

- Collected electrical signals from human muscle surfaces with the wearable units
- Developed training functions based on the analysis and prediction of body movement states
- Designed and implemented an novel approach combined with Computer Vision technique and Myoelectric sensor, which significantly improved the overall motion prediction accuracy

## WORK EXPERIENCE

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Baidu Inc	<i>February - July 2021</i>
Data Analyst Intern, YY Division	<i>Guangzhou, China</i>

- Conducted in-depth market research for organizing market campaigns, brandings and online promotions; planned and managed joint-marketing with Baidu partners (Oppo, Vivo)

- Analyzed sales data to identify the preferred sales forms and developed a set of corresponding recommendations for the Marketing team
- Proactively assisted managers to coordinate different departments and help with administration duties
- Responsible for providing data-driven analysis and support to help YY division split from Joyy Inc merge into Baidu Inc

Joyy Inc

*September 2020 - February 2021*

*Data Analyst Intern*

*Guangzhou, China*

- Maintained giant volumes of client data and utilized quantitative research methods to capture purchasing trends for iterating sales and marketing strategies
- Managed event operations covering planning and implementing operation schedules, ensuring on-time delivery for live media and VIP
- Collaborated with strategy analysts to address their requests and problems regarding the Live event, increasing satisfaction and efficiency of the streamer and audiences

VIP.COM

*June - August 2020*

*Data Analyst Intern*

*Guangzhou, China*

- Cooperated with vendors to promote products and enhance their online store operations
- Deeply engaged in the data-driven sales support with Vans to boost their success on VIP.COM's platform

## HONORS & AWARDS

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Dean's List

*2020 - 2022*

Second prize of China Computer Design Competition (Guangdong)

*June 2020*

Dean's Undergraduate Scholar

*September 2019*

Excellent Award of China Collegiate Programming Contest (Guangdong)

*May 2019*

## TECHNICAL STRENGTHS

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Language:

Native Chinese speaker (both Mandarin and Cantonese), Fluent in English,

Programming Language: C, C++, Python (NumPy, Pandas, SciPy), Java, JavaScript

Database: MySQL, SQL Server, SQLite

Framework: TensorFlow, Keras, Scikit-learn, Hadoop, Spark, Spring, Flask