HONGZHEN LIANG

graduation date 12/2022
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EDUCATION

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

RESEARCH EXPERIENCE

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

Baidu Inc ***February - July 2021***
Data Analyst Intern, **YY Division** ***Guangzhou, China***

- **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

Dean's List	*2020 - 2022*
Second prize of China Computer Design Competition (Guangdong)	*June 2020*
Dean's Undergraduate Scholar	*September 2019*
Execellent Award of China Collegiate Programming Contest(Guangdong)	*May 2019*

TECHNICAL STRENGTHS

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**