Xinbei Zhu

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Areas of expertise include:

☐ Programming in Languages   ☐ Event Management   ☐ Project Management
☐ Algorithms Application   ☐ Data Analysis   ☐ Public Speaking and Presentations

WORK EXPERIENCES

Inspur   Jinan, China, October 2021 - December 2021
Digital R&D Team; Role: Software Developer Intern.

Worked as an intern to learn about natural languages processing and use Bert model for word similarity analysis.

Main Contributions:

- Scraped data and keywords from the web; cleaned the database, and labeled the data. Adjusted the parameters of the Bert model to improve the accuracy of the model.

Chinasoft International Technology Service   Beijing, China, August 2021 - October 2021
Role: Data Analyst Intern.

Worked as an intern to understand the specific work and affairs of a data analyst preliminarily.

Main Contributions:

- Participated in the daily monitoring and analysis of the data of company's products using classification models and clustering models, and statistic/computing tools like RStudio and Jupyter

PUBLICATIONS

Dr. Mingqiu Wang, Min Ren, Shengli Zhao, **Xinbei Zhu**, Robust Optimal Subsampling Based on Weighted Asymmetric Least Squares, *Computational Statistics and Data Analysis* (CSDA-D-22-01191).

PROJECT EXPERIENCES

Assessment for anti-cracking capabilities of The Glaze system   September 2023 - now
Aim to apply state-of-the-art denoising models to the Glaze system to assess its anti-cracking capabilities

Main Work:

- Prepare the dataset for training by ensuring data quality and consistency.
- Review academic papers to identify state-of-the-art denoising models.

Parcel Damage Classification   January 2023 - May 2023
Set out to solve the problem of identifying damaged packages in hopes that such a system will be implemented in a distribution center to automatically identify and mark damaged packages as they pass through.

Main Work:

- Use Google iCrawler to gather custom image dataset and use python script to remove duplicate images.
- Train a YOLO-based model to identify the damaged packages. Incorporate the YOLO pre-trained model into our labelled dataset to develop a novel classification model.
- Build the front-end for classifying damaged and undamaged packages. Develop the front-end interface for package classification utilizing the VGG19 model with a custom top layer, subsequent to a comprehensive evaluation of recall rates and performance across multiple models, including ResNet50, YOLOv5, VisualBERT, and VGG19.

How to Maximize Customer Value Potential? August 2022 - December 2022
Client/Sponsor: Grameenphone - Bangladesh

To reduce customers' churn rate, increase customers' lifetime value and maximize revenue.

Main Work:

- Clean the data using Removing Records Method.

- Use Classification Model and K-means Clustering Model to Analyze and Train the Data. Cluster customers into different groups; figure out the likes and dislikes of groups; decide whether to increase or decrease related services based on these criteria.

Education and Technical Proficiency

Virginia Polytechnic Institute and State University Started in Fall 2023
Master of Science, Computer Science

Virginia Polytechnic Institute and State University 2019 - 2023
Bachelor of Science, Computer Science

Virginia Polytechnic Institute and State University 2019 - 2023
Bachelor of Science, Computational Modeling and Data Analytics

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Skills and Languages

Technical Skills:
Computer Languages: C, Java, Python, R, Latex
Applications & Tools:
Microsoft Office(Word, PowerPoint, Excel)

VS Code, Eclipse, Anaconda, RStdio, Git
Languages:
English
Chinese