Xuxin Tang

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Technical Skills

Programming languages: Python, Java, C++, SQL, Hive, HTML, CSS, JavaScript
Frameworks and Toolkits: Hadoop, Docker, Kubernetes, Kafka, Git, Linux/Unit
Machine Learning and AI: Large Language Modeling(LLM), Transformers, LSTM, CNN
Libraries: Pytorch, Tensorflow, OpenCV, Scipy, sklearn, NLTK, Pandas, Numpy, Matplotlib

Work Experience

Virginia Tech **May 2023 – Now**
Research Assistant *Blacksburg, VA United States*

- Served as the primary contributor in developing visualized human-AI collaboration systems that boost individual productivity by aligning Large Language Models to human-intended goals and preferences.
- Comprehend and refine AI model interactions within societal and practical contexts.

Joyy Inc. **July 2019 – Mar. 2021**
Machine Learning Engineer *Beijing, China*

- Designed and implemented scalable machine learning models to enhance video recommendation algorithms, efficiently improve pivotal user metrics, including new user retention, video engagement rate, viewing duration, and beyond. Utilized techniques such as collaborative filtering, XgBoost, and deep learning (using TensorFlow and PyTorch).
- Conducted rigorous data analysis on large datasets (over 50 TB) to understand user behavior and preferences. Optimized existing recommendation algorithms by incorporating user feedback and real-time interaction data.
- Conducted setup and evaluation of A/B tests to compare the effectiveness of various recommendation algorithms. This included defining metrics, interpreting results, and making data-driven decisions to refine the recommendation process.

Oracle China R & D Center **July 2018 – May 2019**
Software Development Engineer *Beijing, China*

- Full-stack development for implementing dashboards for Oracle SaaS cloud computing platform, empowering customers with real-time data visualization interface for seamless monitoring and management of computing resource.

Education

Ph.D. in Computer Science **2022 – Now**
Virginia Polytechnic Institute and State University, Blacksburg, United States

M.S. (Thesis-based) in Software Engineering **2015 – 2018**
Wuhan University, Wuhan, China

B.S. in Engineering **2011 – 2015**
Wuhan University, Wuhan, China

Competitions

Kaggle: Jigsaw Unintended Bias in Toxicity Classification **May 2019 – Jun. 2019**
Leader, primary Contributor *Top 10% out of 3030 teams, bronze medal*

- Aimed to solve the problem of identifying toxicity across diverse online conversations by building a NLP-based model to recognize toxicity and minimize this type of unintended bias with respect to mentions of identities.
- Set up and experimented advanced NLP models, including BI-LSTM, BERT, GPT-2, and XLNet. Based on our experiment results, we chose the blend of BI-LSTM training and BERT fine-tuning in our method.

Ali Tianchi: Intelligent Traffic Forecast Challenge **May 2017 – Aug. 2017**
Primary Contributor *Top 3% out of 1716 teams*

- Developed a time sequence model to estimate the average travel time between 7 AM to 8 AM in July, utilizing historical data of daily travel times for each vehicle across 132 roads from March to May.
- Utilized LSTM for prediction, meticulously refining parameters such as encoder and decoder layers, hidden units, batch size, and dropout for optimal model performance.