Name: Jiajie(Ricard) He

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EDUCATION BACKGROUND

University of Maryland, Baltimore County (UMBC), USA **08/2024 - so far**
Ph.D student in Computer Science GPA: N/A
University of Southern California (USC), USA **09/2021 – 05/2023**
Master of Engineering in Electric Computer and Engineering GPA: 3.1/4.0
Changchun University of Science and Technology (CUST), China **09/2017 – 05/2021**
Bachelor of Engineering in Optoelectronic Information Science & Engineering GPA: 3.8/4.0
Awards: Second-class Scholarship of CUST (2020) | Third-class Scholarship of CUST (2017 & 2018 & 2019)
Delaware State University (DSU), USA **09/2017 – 05/2021**
Cooperation program undergraduate student GPA: 3.8/4.0

WORK EXPERIENCE

University of Maryland, Baltimore County **08/2024 - so far**
Graduate Research Assistant **Baltimore, MD**
- Designed novel MIA based on LiRA to measure user-level privacy score and interaction-level privacy score in RecSys.

Marquette University **05/2024 - 07/2024**
Computer Science Research Assistant **Milwaukee - WI**
- Designed a prototype FT-PrivacyScore efficiently and quantitatively estimates the privacy risk of participating in a model fine-tuning task.
- Explore to protect medical image privacy through RMT and AES privacy methods in cloud environments.
- Analyze privacy protection analysis on two medical tasks (classification and segmentation) on various model like ResNet, VGG and U-Net(++).

CodersData **Los Angeles, CA**
Data Scientist **06/2023 – 03/2024**
- Designed and tuned machine learning models (LGBM, Wide & Deep) in Databricks for Click-Through Rate (CTR) prediction, reducing binary loss to 0.18 and supporting business decisions with visualization insights.
- Collaborated with cross-functional teams to analyze TikTok video performance and identified key drivers of user engagement, increasing viewership by 5.7% and link CTR by 1.2%.
- Conducted large-scale NLP analysis on TikTok video comments using topic modeling (LDA) and sentiment analysis to uncover user preferences and content pain points, driving adjustments in content recommendation strategies and informing creator guidelines to boost audience retention.

Hirebeat Inc **Jersey City, NJ**
Data Scientist Intern **01/2023 – 05/2023**
- Developed and deployed a natural language processing (NLP) model using AWS tools to match resumes with job descriptions, achieving 85% skill-matching accuracy.
- Designed and implemented A/B testing for UI changes; leveraged user interaction data to drive insights, boosting CTR by 18% and user retention by 70%.
- Engineered features to improve HR decision models, increasing prediction accuracy by 20% and job placement success by 35%.
- Utilized AWS Glue DataBrew, Glue Studio, and Amazon Athena to preprocess and transform unstructured candidate data; built 12 analytical views for QuickSight dashboards, enhancing data accessibility across teams.

Jack Options Investment Management Co.Ltd, **Shanghai, China**
Quant Analyst intern **01/2021 – 07/2021**
- Conducted rigorous asset pricing research evaluating machine learning methodologies, and performed non-parametric estimation, variable selection, and time series splitting.
- Developed and backtested Python-based stock selection models, identifying non-linear relationships between stock factors and forward returns while addressing overfitting and multicollinearity.
- Developed model extensions by introducing bagging and randomization into benchmark models, training stocks by industry groups, applying various kernel functions to classifiers, and building composite factors for stock metrics.

Publication

- Yuechun Gu, Jiajie He, and Keke Chen. 2024. Demo: FT-PrivacyScore: Personalized Privacy Scoring Service for Machine Learning Participation. In Proceedings of the 2024 on ACM SIGSAC Conference on Computer and Communications Security (CCS '24).
- Liu Y, Xia Y, Wang X, Wang Y, Zhang D, Nguchu BA, He J, Wang Y, Yang L, Wang Y, Ying Y, Liang X, Zhao Q, Wu J, Liang Z, Ding D, Dong Q, Qiu B, Cheng X, Gao JH. White matter hyperintensities induce distal deficits in the connected fibers. Hum Brain Mapp.
- HE Jiajie, Comparison Between the Ultra-wide Band Gap Semiconductor AlGaN and GaN. Proceedings of the 2019 International Conference on Energy, Chemical and Materials Science (ECMS 2019).

Teaching Experience

Teaching Assistant:

Ordinary Differential Equation - ChangChun University of Science and Technology Spring 2019
Electromagnetism - Delaware State University Spring 2020

Academic Review

Conference:

- IEEE International Conference on Cognitive Machine Intelligence (IEEE CogMI): 2024
- AAAI Conference on Artificial Intelligence (AAAI): 2024

Journal:

- ACM Transactions on Internet Technology (TOIT): 2025