Hongling Lei

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EDUCATION

Carnegie Mellon University   Pittsburgh, PA
Master of Information Systems Management, Business Intelligence and Data Analytics. GPA 3.93   *Aug. 2021 – Dec. 2022*
- Relevant Courses: Deep Learning, Computer Vision, Data Structures for Application Programmers, Object Oriented Programming in Java, Unstructured Data Analytics (NLP), Machine Learning for Problem Solving

Xiamen University   Xiamen
Bachelor of Economics, Finance. GPA 3.81   *Sept. 2016 – Jun. 2020*
- Relevant Courses: Mathematical Analysis, Statistics, Probability Theory, Linear Algebra, Econometrics
- **University of California, Berkeley**   Berkeley, CA
  Semester Exchange, Statistics, Computer Science, Business. GPA 3.95   *Jan. 2019 – May 2019*
- **Nanyang Technological University**   Singapore
  Summer Exchange, Digital Marketing. GPA 5.0   *Jun. 2018 – Jul. 2018*

PROFESSIONAL EXPERIENCE

PPG Industries   Pittsburgh, PA
AI/ML Intern, AI/ML Center of Excellence   *May 2022 – Aug. 2022*
- Built time-series forecasting models like ARIMA, Exponential Smoothing, and Prophet on Azure Machine Learning to predict finished goods demand and thus optimize PPG's supply-chain inventory management
- Boosted productivity by developing Auto-Forecaster that takes any time series, experiments it with over ten forecasting algorithms, compares forecast accuracies, and recommends the best model

Tencent   Shanghai
Data Scientist Intern, Public Data Science Department   *Apr. 2021 – Jul. 2021*
- Conducted causal inference with algorithms like Causal Bayesian Networks, X-Learner, and Causal Forest to analyze treatment effects of key drivers for customer consumption time on Tencent's streaming platforms
- Implemented experiments on user experience with Tencent WeSee, TikTok, and Kuaishou
- Deployed the causal inference pipeline, including modules like feature engineering, machine-learning model training, and future interventions based on analytical insights

DiDi Chuxing   Beijing
Data Analyst Intern, Decision Support Department   *Sept. 2020 – Nov. 2020*
- Supported business and strategy decisions by extracting and analyzing billions of data points on Apache Hive
- Designed a market sizing model with SQL and Excel, correctly predicting driver and order growth rates during holidays and alleviating traffic burdens in 14 Chinese metropolitan areas
- Created and monitored business dashboards that can update data and visualize analytical results weekly

Bairong Technology   Shenzhen
Data Scientist Intern, Financial Technology Department   *May 2020 – Aug. 2020*
- Built a semi-supervised learning model using the MixMatch algorithm with PyTorch to classify customers into different groups based on credit default risk predictions, achieving 90% accuracy
- Developed an automated report generation program to calculate performance indicators, graph statistical distributions, produce analytical summaries, and create formatted slideshows

PROJECTS

Unsupervised Speech Recognition (GANs)   *Apr. 2022*
- Implemented unsupervised speech-to-text transformation with the wave2vec_U algorithm, enabling speech recognition for low-resource languages without sufficient training labels

Lucas-Kanade Tracking   *Mar. 2022*
- Developed real-time automated object tracking applications for both template matching and motion detection

3D Object Reconstruction Based on 2D Images   *Mar. 2022*
- Reconstructed 3D objects from stereoscopic image pairs using triangulation and the eight-point algorithm

Facial Recognition (CNNs)   *Feb. 2022*
- Built a face recognition system that achieved 82% accuracy on classification and 0.96 AUC on verification

Augmented Reality with Planar Homographies   *Feb. 2022*
- Conducted real-time image and video AR projections through interest point matching and homography estimation

TECHNICAL SKILLS

Programming/Software: Python (PyTorch, Google Colab, Azure ML), Java, SQL (Apache Hive), R, Stata, HTML
Languages: Mandarin Chinese (native), English (fluent, TOEFL 116 with Speaking 30), Korean (beginner)