

KIEN TRAN

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EDUCATION

Georgia Institute of Technology

Aug 2022 - Dec 2023

Master of Science in Computational Data Science

GPA: 4.0/4.0

- Coursework: Regression Analysis, Data & Visual Analytics, Operations Research, Deep Learning, High Performance Computing, Information Retrieval, Computer Vision, Large Language Models
- Research assistantship: Developed ranking models on highly restrictive healthcare data and computing resources

Foreign Trade University

Sep 2013 - Dec 2017

Bachelor's degrees – Double majors in Economics and Business Administration

GPA: 3.62/4.0

EXPERIENCE

Zillow Group | Applied Science Intern

May 2023 - Aug 2023

- **Developed customer preference machine learning models** using LightGBM and the Transformer architecture
- Utilized embeddings from pretrained graph and language models to enrich property and user representations, leading to a **3% overall and 8% key segment improvement** in roc_auc
- Provided **valuable insights for product enhancement** with model analyses (feature importance, ablation study)

One Mount Group | Lead Data Scientist (promoted from Data Scientist)

Aug 2019 - Jul 2022

- Spearheaded ideation, design, and development of **personalization and recommendation data products**
- **Oversaw a data science team**, translating business needs to task requirements, code reviews, mentoring members
- Engineered a lookalike system resulting in **2.5x click-through rate** for marketing & advertising campaigns
- Collaborated cross-functionally to establish 70 predictive customer attributes, **doubling ML models' usage**
- Led development and deployment at scale a promotion recommendation system for 11M users, using uplift models and integer programming to **boost transaction count by 90% and reduce excessive costs by \$35K**

Boston Consulting Group | Consulting Analyst

Jul 2018 - Jul 2019

- Analyzed data for an Asian bank with **15 million customers**, resulting in actionable revenue strategies
- Identified clusters of customer personas through survey analysis and designed appropriate customer journeys

OpenCommerce Group | Data Analyst

Aug 2017 - Jun 2018

- Built and maintained an analytic database (HDFS, Presto) of 330K clients and **>10 million daily shopping customers**
- Conducted deep-dive analysis to identify pain points and suggest improvements for B2B e-commerce products

PROJECTS

- **ChatGPT-powered Search Engine** ([GitHub](#)): Developed a search engine utilizing retrieval augmented generation (gpt-3.5 API, prompt engineering, Sentence Transformer) to create conversational responses with sources
- **Advanced Recommendation with Graph Mining** ([Report](#)): Implemented GraphSAGE & Graph Attention models using PyTorch Geometric for user-product link predictions, improved roc_auc by 2% over a strong NCF baseline
- **Generative AI for Inpainting** ([Report](#)): Implemented and evaluated 3 generative inpainting methods. Stable Diffusion was the most natural and outperformed DCGAN & Contextual Attention on FID
- **Recommender System for Groups** ([GitHub](#)): Used Python, SQLite, Flask, and JavaScript to create a matrix factorization model (NRMSE = 0.14) and a web UI to recommend novel and relevant anime for a group of friends

SKILLS

Programming: Python (Numpy, Pandas, scikit-learn, PyTorch), SQL, R, C++, Data structures & algorithms

Machine Learning: Tree-based: Random Forest, XGBoost; Linear & Logistics regression; Deep Learning: CNNs, RNNs, Transformer, Graph Neural Networks; Statistical analysis: Survival analysis, Uplift modeling, A/B testing

Deployment: BigQuery, PySpark, MySQL, Google Cloud Platform (GCP), AWS, Kubeflow, Docker, Git, Shell scripting

Visualization: Pyplot & Seaborn; Microsoft Excel & PowerPoint; Google Data Studio, Tableau