# Xinkai Chen

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#### EDUCATION

#### **Carnegie Mellon University** Pittsburgh, PA Master of Information Systems Management (GPA: 3.91, Highest Distinction) Aug 2019 - Dec 2020 • Courses: Deep Learning, ML with Big Data, ML for Text Mining, Database Management, Distributed Systems Fudan University Shanghai, China Bachelor of Management (School of Computer Science) Sep 2015 - Jun 2019 • Courses: Information Systems and Security, Data Structure and Communication, Object-oriented Programming EXPERIENCE **Data Scientist** Chicago, IL Mar 2021 – Present Elevance Health, Inc. (formerly Anthem Inc.) • Built 10+ GPT-40 based RAG models to extract patient information for more efficient clinical review • Created helper functions to reuse intermediate or shared prompt outputs and reduced $\sim 15\%$ token usage • Transformed 10K+ pages of medical records with AWS Textract and various embeddings and chunking methods • Built 10+ Transformer (S-BERT) models to automatically approve 30% cases with 85% precision to reduce costs • Built 15+ LightGBM models with Bayesian optimization and achieved 50% auto-approvals with 90% precision • Led 5 data scientists and delivered 30+ models; actively connected with business, clinical, and engineering teams Machine Learning Consultant Pittsburgh, PA Hamiltonian Systems, Inc. Jun 2020 - Dec 2020

- Built a TensorFlow neural network model to predict weekly inventory demands with more than 70% accuracy
- Led a group of 5 students and built tree-based models (Random Forest, XGBoost) for inventory lifecycle prediction
- Created a FastAPI interface to deploy ML models on the cloud for the engineers to cut human costs by 90%

### Graduate Research Assistant

Carnegie Mellon University

- Analyzed 163K Yelp reviews using Structural Topic Model in R to discover sentiments and meaningful topics
- Used regression to evaluate the effect of special days and Propensity Score matching to handle class imbalance

# **Consultant Intern**

Deloitte Consulting

- Created an invoice classification tool using Python and Tensorflow with an accuracy of more than 90%
- Built automated invoice verification solutions for two clients to minimize human intervention (<5%) with UiPath

### Data Analyst Intern

Dell Technologies

Shanghai, China Nov 2018 - May 2019

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Pittsburgh, PA Feb 2020 - May 2020

- Created a Python classification tool for inventory alert level to cut the turnaround time by more than 95%
- Performed data cleaning and aggregation on 4K weekly data of 5 different data sources using VBA and Python

### Projects

#### AiBBA: GPT-2 Based Poetry Generation Model | Python, GPT-2, FastAPI, Streamlit Sep 2020 – Feb 2021

- Fine-tuned GPT-2 using 90K poetry corpus on GPU and generated poems that fooled humans 16% of the time
- Created an interface for the AI using Streamlit and FastAPI, and published the AI poetry eBook on Amazon

#### Music Popularity Prediction on One Million Songs | Python, Spark, AWS Aug 2020 – Dec 2020

- Aggregated 1M distributed HDF5 files on AWS S3 and built 5 ML models on AWS EMR using PySpark
- Achieved 72% accuracy using gradient boosting and found top 10 most important features based on impurity

# Technical Skills

Languages: Python, R, Java, SQL, HTML/CSS, C/C++ Developer Tools: Kubeflow, AWS, Jupyter, Git, Visual Studio, PyCharm, IntelliJ, FastAPI Libraries: OpenAI, Pytorch, Transformers, TensorFlow, Pydantic, Scikit-learn, Spark MLlib, H2O, Pandas, NumPy