Chenkuan Liu

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EDUCATION

UNIVERSITY OF TEXAS AT AUSTIN
M.S. in Computational Science, Engineering, and Mathematics (Expected graduation May 2022)
Current GPA: 4.0/4.0

Relevant Coursework

- Machine Learning
- Data Mining
- Natural Language Processing
- Regression Analysis
- Bayesian Statistics

UNIVERSITY OF CALIFORNIA-LOS ANGELES
B.S. in Applied Mathematics (Jun 2020)
GPA: 3.8/4.0

Relevant Coursework

- Linear Algebra
- Probability Theory
- Numerical Analysis
- Image Processing
- Artificial Intelligence

Awards & Honors

- Cum Laude
- Dean's Honors List

LINKS

Github • LinkedIn

MACHINE LEARNING EXPERIENCE

SEQ-TO-SEQ MODEL FOR QUESTION ANSWERING
Constructed Seq2Seq model with LSTM, attention mechanism and beam search through PyTorch that inputs questions and outputs query language on Geoquery dataset. Evaluated the performance with respect to different architecture, training regime and hyperparameter settings.

DATA MINING ON ECONOMIC IMPACTS OF COVID-19
Collaborated on a team project which employed various techniques in machine learning and data mining to analyze the impact of COVID-19 on different economic data, culminated in a presentation and a blog on Medium.

TRANSFER LEARNING ON DEEP NEURAL NETWORK FOR IMAGE CLASSIFICATION
Applied transfer learning and fine-tuning through Keras on GANs for image classification and evaluated its performance with common CNN network and conventional PCA & k-NN algorithm.

GRAPHICAL MODELS FOR NAMED ENTITY RECOGNITION
Implemented Hidden Markov Model and Conditional Random Field on named entity recognition dataset through Python and analyzed performance with respect to different feature extraction methods.

OTHER EXPERIENCE

TEACHING ASSISTANT
UT Math Department / Jan 2021 - May 2021 (*in progress*)

- Holding Zoom discussions and office hours on upper division linear algebra course with application to electrical engineering; writing Python and NumPy tutorials to complement lecture material.

ONLINE CERTIFICATIONS

- Coursera: Deep Learning Specialization
- DataCamp: Data Manipulation with Python Track

PROGRAMMING SKILLS

Python (NumPy, Pandas, PyTorch, Keras, Tensorflow, Scikit-learn) • Jupyter • R • Matlab • Latex