




Jiangning Chen

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Experience

Meta

Machine Learning Scientist

Cambridge, MA

Jan 2022–Present

- Just started.

Amazon

Applied Scientist

Cambridge, MA

Dec 2019–Jan 2022

- Use personalized customer entity based features to build Alexa cross domain reranking model
- Lead the design and implementation of incorporating entity features into large-scale NLU models, to improve ranking performance in production for multiple domains (Music, Shopping, Video, Local Search, Games).
- Build the Elastic Search and BERT-based reranking model to improve the entity search recall and ranking precision in Alexa social bot.

Katabat

Data Scientist Lead

Wilmington, DE

July 2019–Nov 2019

- Worked with large, complex data sets. Developed machine learning models to solve difficult, non-routine analysis problems.
- Built tree based business recommendation model with effective presentations of findings through visual displays of quantitative information.

Katabat

Data Scientist Internship

Wilmington, DE

May 2018 - July 2018

- Developed machine learning model for financial program Chatbot.
- Developed machine learning training pipeline for feature engineering.
- Developed machine learning model for financial product recommendation systems.

Georgia Institute of Technology

Research Assistant, Instructor

Atlanta, GA

May 2014 - May 2019

- Research on theoretical statistics and statistical theories of machine learning on NLP
- Instructor in Integral Calculus, Statistics and Appls, Differential Calculus, Probability & Statistics, Survey of Calculus.
- Teaching Assistant in Calculus 2, Calculus 3, Multivariable Calculus, Linear Algebra, Differential Equations.

Education

Georgia Institute of Technology

PhD in Mathematics. Advisor: Heinrich Matzinger, Karim Lounici

Atlanta, GA

2014–2019

Rensselaer Polytechnic Institute

BS in Mathematics. Advisor: Chjan Lim

Troy, NY

2012–2014

University of Science and Technology of China

BS in Mathematics.

Hefei, China

2009–2012

Skills

- 7 years of experience in Machine Learning, Deep Learning, Natural Language Processing (NLP), Entity Resolution, Search and Ranking systems, Conversational AI.
- Strong leadership, management skills and communication skills.
- **Programming** Python, Matlab, Spark, SQL, R, Mathematica, Latex, C.
- **Packages** pandas, numpy, scipy, Tensorflow, pytorch, keras, scikit-learn, XGboost, LightGBM, Catboost etc.
- **Experience** AWS EC2, AWS S3.

Publications

- Chen, Jiangning, et al. "Personalized Entity Resolution with Dynamic Heterogeneous KnowledgeGraph Representations" ECNLP (2021) (accepted)
- Chen, Jiangning, et al. "Optimizing NLU Reranking Using Entity Resolution Signals in Multi-domain Dialog Systems" NAACL (2021) (accepted)
- Chen, Jiangning, et al. "Entity Resolution in Open-domain Conversations" NAACL (2021) (accepted).
- Chen, Jiangning, et al. "Cross Interaction Network for Natural Language Guided Video Moment Retrieval" SIGIR (2021) (accepted)
- Chen, Jiangning, et al. "A cost-reducing partial labeling estimator in text classification problem." Future of Information and Communication Conference (FICC) 2020
- Chen, Jiangning, et al. "Naive Bayes with Correlation Factor for Text Classification Problem." 2019 18th IEEE International Conference On Machine Learning And Applications (ICMLA). IEEE, 2019.
- Chen, Jiangning, et al. "Improved Naive Bayes with optimal correlation factor for text classification." SN Applied Sciences 1.9 (2019): 1129.
- Chen, Jiangning. "Convergence rate of Krasulina estimator." Statistics & Probability Letters 155 (2019): 108562.
- Chen, Jiangning, et al. "Centroid estimation based on symmetric KL divergence for Multinomial text classification problem." 2018 17th IEEE International Conference on Machine Learning and Applications (ICMLA). IEEE, 2018