Jiahui (Karen) Chen

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https://jiahuikchen.github.io/

Education

UNIVERSITY OF UTAH
B.S. in Computer Science, Minors in Math and Cognitive Science – May 2020
Graduated Cum Laude. Recipient of the President's Scholarship, Regents' Scholarship, and Bingham Alumni Scholarship

Languages/Skills: Python, PyTorch, Java, C#, C++, JavaScript, TensorFlow, LaTeX

Technical Experience

SOFTWARE ENGINEER – META
July 2022 to Present: Bayesian Modeling Team
Applying Bayesian statistical modeling and inference, through an in-house probabilistic programming language, to Meta's A/B testing infrastructure.
Implementing Bayesian optimal stopping to stop experiments early when they are predicted to result in no improvement or regression in metrics, saving revenue and resources.

June 2020 to July 2022: Probabilistic Neural Networks Team
Researched and developed a PyTorch-based library of uncertainty quantification methods (UQM) for deep learning. These are methods that allow neural networks to express how certain they are in their predictions.
Main developer for the Benchmarking sub-library, an experimentation platform that allows users to simulate uncertainty, add UQM to models, and run uncertainty-aware experiments on simulated and SOTA benchmark datasets.
Applied UQM to ranking, anti-scraping, and computer vision models in Meta products.

SOFTWARE ENGINEERING INTERN – INSTAGRAM (META)
May 2019 to August 2019
Created computer vision models that detect guideline-violating media. Designed and implemented auto-machine learning thresholding infrastructure that decreased the amount of non-violating media deleted off Instagram. Deployed the models and infrastructure to across Instagram.

EXPLORE INTERN – MICROSOFT AI & RESEARCH ORG
May 2018 to August 2018
Constructed a table parsing system, as part of a webpage parsing pipeline, that used machine learning to find subject properties in tables and rule-based parsing to obtain corresponding subject values. Improved existing table parsing coverage by 2.6 times at 95% accuracy.

UNDERGRADUATE RESEARCHER – UNIVERSITY OF UTAH
January 2018 to May 2021: Network Traffic Classification Project (NSF #1642158)
Developed similarity-based, probabilistic classification of network traffic. Part of the NetSecOps (Network Security Operations) project advised by Professors Jeff Phillips and Jacobus Van der Merwe. First author paper published in Springer Cluster Computing 2021.

November 2017 to December 2018: SLATE Project (NSF #1724821)
Containerized and deployed 15+ scientific computing applications on SLATE, an NSF-funded experimental high performance computing platform that hosts research computing applications on distributed compute resources. Contributed to three conference publications in PEARC 2018 and PEARC 2019.