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| **Tianjian Guo**  **Education**  **Ph.D. in Management Science, Information System,** Department of Information, Risk, and Operations Management.  McCombs School of Business, University of Texas, Austin (expected 2024)  Research Interests:   * Applications of Machine learning, Deep Learning, and Explainable AI in healthcare * Economic and policy effects of digital transformations, such as Health Information Exchange, in healthcare | |
| **Bachelor of Science, Computer Science**, Department of Computer Science**;**  **second major: Mathematical Decision Science,** Department of Statistics and  Operation Research  University of North Carolina at Chapel Hill  **GPA: 3.75/Major GPA: 3.89/3.73**  Relevant courses: Stochastic Modeling, Data Structures, Computer Organization, Algorithm, Internet Services & Protocols, Statistical Methods, Database, Machine Learning, Distributed System, Optimization, Bio-algorithms, Operation System | |
| **Research & Work Experience** | |
| Honor thesis in Mathematical Decision Science, Department of Statistics and Operational Research, UNC-CH | August 2018 – May 2019 |
| * Exploring various methods to estimate characteristics of graphs, such as triangle counts, when the input is a stream of edges. | |
| Collaborator for Large Course Redesign, Department of Statistics and Operational Research, UNC-CH | May 2018 – August 2018 |
| * A 200-hour project to revamp and upgrade MAXIM, the accompanying software for the textbook *Introduction to Modeling and Analysis of Stochastic Systems* into a package for the programming language R. | |
| Mentored Research, Department of Statistics and Operational Research, UNC-CH | January 2017 – August 2018 |
| * Estimating degree distribution of large-scale graphs by performing random edge sampling/random node sampling and fitting the samples through various statistical estimation approaches. | |
| Research Assistant, Department of Computer Science and Technology, Tsinghua University | June 2016 – August 2016  May 2017 – August 2017  May 2018 – August 2018 |
| * Contributed to building a framework for Breadth-first search that utilizes both the CPU and the GPU utilizing both OpenMP and CUDA. * Assisted finalizing a conference paper about optimizing Breadth-first search on supercomputers * Modified and documented an application that runs MPI programs on Hadoop YARN clusters through the usage of MPICH’s hydra process manager. * Created a modified version of the graph-embedding algorithm, structure2vec, that lets machine-learning methods, such as support vector machines, to process large scale graphs as if the nodes are vectors. | |
| **Leadership Positions** | |
| Director, HackNC organizing committee | February 2016 – February 2018 |
| * Organizing an annual hackthon that historically had 600 to 800 people attending. * Responsible for logistics of the event, managing the supplies, volunteers, contractors, food vendors that made the event possible. | |
| Director, UNC ESport club | May 2016 – May 2018 |
| * Officer of the largest special interest club on campus. * Experience with organizing large events, such as Gamefest, a biannual event, with more than 200 attendance on average, for people around the Triangle area to get together and share their love of video games | |
| **Relevant Skills** | |
| Java, JavaScript, C#, C/C++, SQL, Python, R, Matlab, Stata, SAS | |
| Deep learning frameworks:  Tensorflow, PyTorch, Caffe/Caffe2, CUDA/CUDNN | |
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