

Xiling Li

Tel: 206-228-1052 Email: xiling.li@northwestern.edu Location: Evanston, IL, USA
Personal Website: <https://xilinggrantli.github.io> Google Scholar DBLP

RESEARCH INTERESTS	Verifiable Query Evaluation, Privacy-Preserving Machine Learning, Secure Multiparty Computation, Zero Knowledge Proofs
EDUCATION	<p>Ph.D. Computer Science, Northwestern University Sep 2021 - Present</p> <ul style="list-style-type: none">• Advisor: Dr. Jennie Rogers <p>M.S. Computer Science, University of Washington Dec 2020</p> <ul style="list-style-type: none">• Advisor: Dr. Martine De Cock• Thesis: <i>Privacy-Preserving Filter-based Feature Selection with Secure Multiparty Computation</i> <p>B.S. Computer Science, University of California, San Diego Dec 2016</p>
EXPERIENCE	<p>Research Assistant, Northwestern University @Database Group Jun 2021 - Present</p> <ul style="list-style-type: none">• Proposed the first work on verifiable and efficient query evaluation with zero knowledge proofs for ad-hoc SQL queries in operator-at-a-time fashion (Submitted to ACM SIGMOD 2023) <p>Research Assistant, University of Washington @PPML Group Sep 2019 - May 2021</p> <ul style="list-style-type: none">• Proposed Mean-Split Gini Impurity algorithm (MS-GINI) [2] for Filter-based Feature Selection (FFS)• Proposed the first general cryptographic protocol [1] for FFS based on honest majority secure multiparty computation with active security, and instantiated feature scoring protocol based on MS-GINI <p>Data Scientist, IBM @Watson IoT Jan 2018 - Aug 2019</p> <ul style="list-style-type: none">• Implemented a case-based reasoning system for disaster prevention based on knowledge graph and deep learning• Implemented a defective product detection vision system based on object detection of different crucial parts of product and defective classification according to partial detection of the product• Implemented a real-time multi-face recognition system for storage monitoring <p>Android Developer, Shenzhen Das Intellitech Co.,Ltd @R&D Department Jul 2017 - Dec 2017</p>
SELECTED PUBLICATIONS	<p>[1] Xiling Li and Rafael Dowsley and Martine De Cock. <i>Privacy-Preserving Feature Selection with Secure Multiparty Computation</i>, In Proceedings of the 38th International Conference on Machine Learning, PMLR 139:6326-6336, 2021.</p> <p>[2] Xiling Li and Martine De Cock. <i>Cognitive load detection from wrist-band sensors</i>. In Adjunct Proceedings of the 2020 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2020 ACM International Symposium on Wearable Computers (UbiComp-ISWC '20). ACM, New York, NY, USA, 456–461. DOI: https://doi.org/10.1145/3410530.3414428</p>
SERVICES	Reviewer: ICML 2021, NeurIPS 2021, ICLR 2022, ICML 2022, NeurIPS 2022, ICLR 2023
INVITED TALKS	Privacy + Machine Learning , Northwestern AI Journal Club, Nov 2021.
SKILLS	C++, Python, Java, EMP-toolkit, Scikit-Learn, PyTorch, MP-SPDZ, AWS EC2, Ubuntu, Docker