

Jiawen Liu

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EDUCATION BACKGROUND

- **Boston University** - Computer Science 09/2019-
Expected Degree: Ph.D (GPA 4/4)
- **University at Buffalo, SUNY** - Computer Science & Engineering 09/2017 - 08/2019
Expected Degree: Ph.D (GPA 3.668/4)
- **Central University of Finance and Economics** - Computer Science 09/2013 - 06/2017
Degree: Bachelor of Science (GPA: 86/100)
Minor: Accounting (GPA: 82/100)

RESEARCH EXPERIENCE

Boston University, Programming Language and Differential Privacy Research Group

- **Laplace Mechanism in Coq** 05/2019 –
- Implementation and Verification of Laplace mechanism in Coq

University at Buffalo, SUNY, Programming Language and Differential Privacy Research Group

- **Programming tools for adaptive data analysis** 12/2018 –
- Design and implemented a type system for analyzing the overfitting in adaptive data analysis programs.
- Implemented a bidirectional Type checker for adaptive data analysis – Ocaml
- **Calibrating Differential Privacy with Distribution Metrics** 09/2017 – 01/2019
- Design and implemented algorithms for differentially private Bayesian inference w.r.t. distribution metrics.

Achievements:

Paper: Tailoring Differentially Private Bayesian Inference to Distance Between Distributions.
(CCS TPDP 2018)

Natural Science Foundation of China

- **Privacy Protection Mechanisms associated with the Scenario in LBS** 01/2016 – 12/2018
- Design and implementation of privacy protection scheme and quantitative mechanism, thesis writing
Achievements:
Paper: Pricing the Privacy Leakage in Location Based Services (**WASA** 2017)
Submitted a paper titled A Framework for Personalized Privacy Preservation in Mobile Social Networks
(IEEE INFOCOM 2017)

CONFERENCE PAPERS

- 03/2017 *Pricing Privacy Leakage in Location Based Services* in **Proc. of Springer** The 12th International Conference on Wireless Algorithms, Systems, and Application (**WASA**), with Fenghua Li, Liang Fang, Ben Niu and Hui Li.

WORKSHOP PAPERS

- 10/2018 *Tailoring Differentially Private Bayesian Inference to Distance Between Distributions* in Proc. Of **CCS TPDP 2018**, with Mark Bun, Gian Pietro Farina, Marco Gaboardi

JOURNAL PAPERS

- 09/2016 *A Review of Semantic-based privacy-preserving Approaches in LBSs* on Chinese Journal of Network and Information Security, with Mingjie Ma, Yuejin Du, Fenghua Li
- 10/2015 *Present Condition Analysis and Security Protocol Modeling of WeChat Payment* on the academic journal Computer Science, 10A, 2015, with Shipei Zhang and Qin Zhou

TEACHING EXPERIENCE

- Teaching Assistance
 - 09/2019-12/2019 **CS 320 TF – Boston University**,
Working on the gradescope to autograde projects, preparing and grading midterm and final exam.
 - 01/2019-06/2019 **CSE 305 TA – University at Buffalo**,
give recitation lectures, grade project, midterm, final exam, prepare lecture materials.
 - 09/2018-12/2018 **CSE 305 TA – University at Buffalo**,
 - 01/2018-06/2018 **CSE 305 – University at Buffalo**,
 - 09/2017-12/2017 **CSE 521 – Concept of Software Engineering– University at Buffalo**,
grading the project, take attendance and prepare lecture materials.

COURSE PROJECTS

- **Distributed System Projects (CSE Distributed System)** **09/2018 – 12/2018**
 - Implemented a distributed Waypoint system which can look up the routine from departure to destination and the weathers of all the city on the arranged routine. (Mongdb, JS, HTML and APIs)
 - Install and use Metamask to connect to block chain and make bit coin transaction.
- **Simple SQL Query Engine (CSE Data Base)** **01/2018 – 05/2018**
 - Built a relational query engine with Java to answer SQL queries efficiently (Java)
 - Implemented group by, aggregation functions, external sorting and data indexing using B+ tree and hashing
- **Machine Learning Projects (CSE Machine Learning)** **09/2017 – 12/2017**
 - Rank using linear Regression
 - Classification using Logistic Regression, Neural Network and Convolutional Neural Network
 - Figure recognition using deep learning by Tensorflow

HONORS & AWARDS

- 09/2019 **BU Fellowship**
- 09/2017 **UB Fellowship**
- 05/2017 **Second Prize**, Comprehensive Development Scholarship of School of Information Science
- 12/2016 **Excellent Student Award** of School of Information Science
- 11/2016 **First Prize**, Comprehensive Development Scholarship of School of Information Science
- 11/2016 **Scientific Research Capacity Scholarship**
- 11/2016 **National Network Security Scholarship** (Top 100)
- 11/2014 **Third Prize**, Comprehensive Development Scholarship of School of Information Science