TIANYI LIU

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EDUCATION

Texas A&M University   **Shanghai, China**
Advised by **Yupeng Zhang** *and* **Juan Garay**   *Aug. 2021 - Expected July 2025*

Shanghai Jiao Tong University   **Shanghai, China**
Honors Bachelor of Science (B.Sc. Hons) in Computer Science   *Sept. 2016 - July 2020*
Graduated from **ACM Class**, an elite CS program for top 5% of students.

PUBLICATIONS

zkCNN: Zero Knowledge Proofs for Convolutional Neural Network Predictions and Accuracy
Tianyi Liu, Xiang Xie, Yupeng Zhang.
(Accepted by CCS 2021)

Doubly Efficient Interactive Proofs for General Arithmetic Circuits with Linear Prover Time
Jiaheng Zhang, **Tianyi Liu**, Weijie Wang, Yinuo Zhang, Dawn Song, Xiang Xie, Yupeng Zhang.
(Accepted by CCS 2021)

RESEARCH EXPERIENCE

Crypto Group, Texas A&M University, Texas   **TX, USA**
Advised by **Yupeng Zhang** *and* **Juan Garay** *on Cryptography*   *Aug. 2021 - Expected July 2025*
- Mainly worked on **interactive zero knowledge proof** and its applications.

Crypto Group, University of California, Berkeley   **CA, USA**
Advised by **Sanjam Garg** *on Cryptography*   *July 2019 - Dec. 2019*
- Mainly worked on **identity-based lossy trapdoor function** and **n-KDM security**.

LATTICE Lab, Shanghai Jiao Tong University   **Shanghai, China**
Advised by **Yu Yu** *on Cryptography*   *July 2018 - July 2020*
- Mainly worked on **lattice-based homomorphic encryption**, **proof of sequential work**, and **PSI**.

WORK EXPERIENCE

Matrixelements   **Shanghai, China**
Intern, supervised by Xiang Xie   *June 2020 - July 2021*
- Worked on the first track of **iDASH Privacy & Security Workshop 2020**, reached 93% accuracy in the final test and generate inferences for the testing dataset within only 1min.
- Published **two CCS papers** advised by Prof. Yupeng Zhang and Dr. Xiang Xie which are mainly related to zero knowledge proof.

TEACHING EXPERIENCE

Teaching Assistant of MS208 @ SJTU: Compiler Design and Implementation   *Spring 2018 - 2019*
Assistant Coach of The ACM-ICPC Team @ SJTU   *2018 - 2019*

HONORS AND AWARDS

Programming Competition
- **The Second Runner-up (3/255)** in The 2017 China Collegiate Programming Contest *Oct. 2017*
- **Champion (1/85)** in The 2017 Chinese Collegiate Programming Contest Woman Final *Mar. 2017*
- Bronze Medal in National Olympiad in Informatics (NOI) *July 2015*

SKILLS

Programming Languages: C++, Java, Python3, and Verilog