

## EDUCATION

**University of Minnesota**, Minneapolis, MN

**Ph.D Student of Computer Science**, 2018-2023(Expected)

Research: Tiered storage and data deduplication at Center of Research in Intelligent Storage([CRIS](#))

**National Chiao-Tung University**, Hsinchu, Taiwan

**Master of Science**, Computer Science, July 2012

Research: Cryptanalysis and Cryptosystems at Cryptanalysis Lab

Dissertation: *Public Key Searchable Encryption with Conjunctive Queries*

**Bachelor of Science**, Electronic Engineering & Computer Science, June 2010

## SKILLS

**Language:** C/C++, Java, Python, R, Shell Script, SQL

**Operation System:** Android, Linux (Ubuntu, Debian, CentOS), MS Windows, MacOSX

**Tools:** TensorFlow, Horovod, OpenSSL, Git, Matlab

## SELECTED RESEARCH PROJECTS/PAPERS

**Distributed Shared Memory and Machine Learning**, Sep. 2018-current

Explored machine learning approaches to distributed shared memory system

**Deep Neural Network (DNN) training hyperparameter tuning**, Sep. 2017-May. 2018

Developed a genetic algorithm to automatically tune hyperparameters during DNN training

**Distributed DNN training**, Sep. 2017-May. 2018

Deployed Horovod to do distributed DNN training on cifar-100 dataset

**Developed light weight encryption library**, Sep. 2017-May. 2018

Integrated cryptography algorithms from OpenSSL library into light weight C library

“**A Meet-In-The-Middle Attack against NTRU with Trinary Parameters**”, 1st author, *Cryptology and Information Security Conference 2011*

Designed an attack capable of breaking NTRU encryption in certain degree

## EXPERIENCE

**Senior Software Engineer**, Industrial Technology Research Institute, Hsinchu, Taiwan, 2017-2018

Deep Learning research - hyperparameter optimization

**Senior Software Engineer**, VIA Technologies, Inc., Taipei, Taiwan, 2012-2017

**Intern**, Cloud Computing Centre, Industrial Technology Research Institute, Hsinchu, Taiwan, 2011

**Research Assistant**, Department of Computer Science, NCTU, Taiwan, 2010-2012

Subject: *Lattice-based Cryptography*

**Teaching Assistant**, Department of Computer Science, NCTU, Taiwan, 2010-2011

Course: *Introduction to Cryptography* and *Introduction to Elliptic Curve Cryptography*

## HONORS&AWARDS

**Study Abroad Scholarship for exchange student**, NCTU, 2010

Awarded for outstanding application for one-term exchange program to School of Computer Science, Carnegie Mellon University

## COMMUNITIES

**Contributor**, contributed to [StackOverflow](#) in the areas of Cryptography, OpenSSL, Big Number

**Lifeguard**, joined Red Cross Taiwan to secure water safety at rivers around New Taipei City