

## I-Ta Lee

<https://doug919.github.io/>

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## LIFE PHILOSOPHY

"A man's worth is no greater than his ambitions." –Marcus Aurelius

## EDUCATION

**PURDUE UNIVERSITY****PH.D. IN COMPUTER SCIENCE**

Expected Aug. 2015 – May 2020 | West Lafayette, IN

- Deep/Machine Learning and Natural Language Processing
- Event Embeddings, Commonsense Modeling, Narrative Scripts

GPA: 3.82 / 4.0

**NATIONAL TSING HUA UNIVERSITY****M.S. IN COMPUTER SCIENCE**

Sep. 2008 – Aug. 2010 | Hsinchu, Taiwan

- Wireless Mobile Ad Hoc Networks

GPA: 4.0 / 4.0

**YUAN ZE UNIVERSITY****B.S. IN COMPUTER SCIENCE & ENGINEERING**

Sep. 2004 – June 2008 | Taoyuan, Taiwan

GPA: 3.96 / 4.0

## SKILLS

**PROGRAMMING**

Proficient:

Python • C • C++ • Java

Git • Shell • PyTorch • Tensorflow

Familiar:

Visual Studio • Makefile • Batch

Past:

System Programming • Socket

Embedded Systems • TCP/IP

**RESEARCH**

Deep Learning • Machine Learning

Natural Language Processing

Embeddings • Commonsense Modeling

Sequence Modeling

**STRENGTHS**

Hard-working (18/24) • Responsibility Leadership

**LANGUAGES**

English • Chinese

## RESEARCH

**PURDUE NLP LAB. | RESEARCH & TEACHING ASSISTANT**

Aug. 2015 – Present | West Lafayette, IN

- Research: Event Embedding, Commonsense Inference, Narrative Scripts

- Teaching: Deep Learning, Object-Oriented Programming in Java, C Programming

**NLP LAB @ ACADEMIA SINICA | RESEARCH ASSISTANT**

Jan. 2015 – July 2015 | Taipei, Taiwan

- Sentiment Analysis on Text

**WIRELESS MOBILE NETWORK LAB. @ NTHU | RESEARCH & TEACHING ASSISTANT**

2009 – 2010 | Hsinchu, Taiwan

- Multi-cast Routing, Wireless Ad Hoc Networks, Vehicular Ad Hoc Networks

## EXPERIENCE

**HEWLETT PACKARD ENTERPRISE | RESEARCH INTERN**

May 2017 – Aug. 2017 | Sunnyvale, CA

- Threat/outlier detection in netflow data (Tensorflow)

**TRENDMICRO INC. | SENIOR SOFTWARE ENGINEER**

Oct. 2013 – Sep. 2014 | Taipei, Taiwan

- Software development for Advanced Persistent Threat solutions

**MOXA INC. | SENIOR SOFTWARE ENGINEER**

Oct. 2010 – Sep. 2013 | New Taipei City, Taiwan

- Software development for networking devices (TCP/IP, UART, Zigbee)

- Led software development for the first Moxa Zigbee device. Presented the design to 400+ engineers.

## PUBLICATIONS

**CONFERENCE PROCEEDINGS**

- I-Ta Lee, and Dan Goldwasser, "FEEL: Featured Event Embedding Learning," in AAAI (2018)
- Kristen Johnson, I-Ta Lee, and Dan Goldwasser, "Ideological Phrase Indicators for Classification of Political Discourse Framing on Twitter," in NLP+CSS (2017)
- I-Ta Lee, et al., "PurdueNLP at SemEval-2017 task 1: Predicting Semantic Textual Similarity with Paraphrase and Event Embeddings," in Proc. Of SemEval (2017)
- Maria L. Pacheco, I-Ta Lee, Xiao Zhang, A. K. Zehady, P. Daga, Di Jin, A. Parolia, and D. Goldwasser, "Adapting Event Embeddings for Implicit Discourse Relation Recognition," in CONLL (2016)
- I-Ta Lee, Tzu-Yi Lin, Yu-Lu Liu and Tein-Yaw Chung, "A Design and Implementation of an iSCSI-based Wireless Remote Video Storage System," in National Computer Symposium (2007)

**JOURNALS**

- I-Ta Lee, Guann-Long Chiou, and Shun-Ren Yang, "A Cooperative Multicast Routing Protocol for Mobile Ad Hoc Networks," in Elsevier Journal of Computer Networks, Volume 55, Issue 10, 14 July 2011, pp. 2407–2424.

## PROJECTS

### **FEEL: FEATURED EVENT EMBEDDING LEARNING** | [HTTPS://GOO.GL/MQpD2G](https://goo.gl/MQpD2G)

Feb. 2018 | AAAI 18' | New Orleans, LA

- feature-enriched event embeddings for commonsense inference

### **FEATURE LEARNING FOR SECURITY DATA** | [HTTPS://GOO.GL/T5oSAQ](https://goo.gl/T5oSAQ)

Aug. 2017 | HPE | Sunnyvale, CA

- threat detection in netflow data using LSTM+attention

### **PREDICTING SEMANTIC TEXTUAL SIMILARITY WITH PARAPHRASE AND EVENT EMBEDDINGS** |

[HTTPS://GOO.GL/IAKDFY](https://goo.gl/IAKDFY)

Aug. 2017 | SemEval 17' | Vancouver, Canada

- learning skip-gram event embeddings and paraphrase embeddings with DSSM-like convolutional neural networks

### **ADAPTING EVENT EMBEDDINGS FOR IMPLICIT DISCOURSE RELATION RECOGNITION** |

[HTTP://GOO.GL/ATc279](http://goo.gl/ATc279)

Aug. 2016 | CoNLL 16' | Berlin, Germany

- improve implicit discourse relation classifications by event embeddings

### **DEEP DISCOVERY ENDPOINT SENSOR V1.0** | [HTTP://GOO.GL/R5A9PR](http://goo.gl/R5A9PR)

2014 | TrendMicro Inc. | Taipei, Taiwan

- a large-scale C++-based software solution for threat detection
- based on YARA—an open-source memory scan and hook solution

### **ZIGBEE NETWORK GATEWAY AND CONVERTER** | [HTTP://GOO.GL/7l1kCX](http://goo.gl/7l1kCX)

2013 | Moxa Inc. | New Taipei City, Taiwan

- developed a family of Zigbee devices
- implemented with C language on two real-time operating systems.

### **AIR POLLUTION SENSING SYSTEM IN VEHICULAR AD HOC NETWORK** | [HTTP://GOO.GL/YDPEZC](http://goo.gl/YDPEZC)

2010 | NTHU | New Taipei City, Taiwan

- led a team to implement a client-server architecture to collect air quality sensor data from vehicles.

### **A MALICIOUS MESSAGE FILTER ON MSN LIVE MESSENGER** | [HTTP://GOO.GL/DNHUKK](http://goo.gl/DNHUKK)

2007 | YZU | Taoyuan, Taiwan

- a malicious message filter based on Naïve Bayes classifier in an instant messaging client

## HONORS

### **AWARDS**

- Presidential Awards from Yuan Ze University (x4) (ranked 1/126 each year)
- Honorary Member of the Phi Tau Phi Scholastic Honor Society
- Certificate of Outstanding Achievement in IEEE Yuan Ze University Student Branch

### **SCHOLARSHIPS**

- Student Scholarship Program from AAAI 2018
- Great Academic Achievement from Yuan Ze University (x3)
- Great Academic Achievement from Inventec Appliances OKWAP
- Great Academic Achievement from LiMing Corporation (x3)
- Taipei Zhong Zhen Foundation (x2)