

**PROFILE**

- Hands-on experience in implementing machine learning algorithms to solve classification/regression/clustering problems as well as exploring various attack and defense techniques against deep learning models through course projects.
- Research experience in analyzing social media data with deep-learning NLP solutions (Word2Vec).
- Industry experience in software development using C/C++ and Go; developing, testing and debugging code; designing interfaces; and administering systems.

**EDUCATION**

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| <b>M.S. in Computer Science, Purdue University, USA</b>                | <b>2017-Present</b> |
| Current GPA 3.97/4.00  |                     |
| <b>M.S. in Computer Science, National Tsing-Hua University, Taiwan</b> | <b>2008-2009</b>    |
| Overall GPA 4.00/4.00 (5 <sup>th</sup> Year M.S. Program)              |                     |
| <b>B.S. in Computer Science, National Tsing Hua University, Taiwan</b> | <b>2004-2008</b>    |
| Overall GPA 3.89/4.00 (Rank: 2/45)                                     |                     |

**ACADEMIC PROJECTS**

- **Twitter Analytics and Reporting Toolkit (SMART)** **Aug. 2018 - Mar. 2019**  
*Advisor: Dr. David S. Ebert*  
 Developed deep-learning NLP (Word2Vec, Doc2Vec) solutions using Python (NumPy, pandas, scikit-learn) with Django framework in which users iteratively (re)train neural network models with streaming text data in real-time to improve the process of finding relevant information. Published a paper in 2019 IEEE VAST.
- **Transactional Security Element for Cyberspace** **2017 Summer**  
*Advisor: Dr. Eugene H. Spafford*  
 Applied web programming skills (*HTML, CSS, JavaScript, SQL, PHP*) to develop secure online and mobile payments system for in-person point of sale (POS) purchases or direct, person-to-person (P2P) payments. Implemented web interface for creating user account and managing user personal and payment information.

**PUBLICATION**

L. Snyder, **Y.S. Lin**, M. Karimzadeh, D. Goldwasser, and D. Ebert. Interactive Learning for Identifying Relevant Tweets to Support Real-time Situational Awareness. In 2019 IEEE Conference on Visual Analytics Science and Technology (VAST).

**WORKING EXPERIENCE**

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|--|----------------------------|
| <b>Software Engineer Intern, Bloomberg, USA</b>  | <b>May 2019-Aug. 2019</b>  |
| <ul style="list-style-type: none"> <li>• Implemented Go library that provides basic LDAP search functionality for internal company use.</li> <li>• Designed and implemented algorithms to optimize time-consuming recursive LDAP search calls with Go routines and distributed cache system (Redis, ETCD).</li> <li>• Redesigned &amp; rewrote current internal service tool using Go to provide Bloomberg's developers access to the development machines.</li> <li>• Integrated the service tool with single sign-on (SSO) user authentication service using OAuth protocol.</li> </ul>  |                            |
| <b>Programmer Analyst, Purdue University, USA</b>  | <b>Mar. 2015-Aug. 2018</b> |
| <ul style="list-style-type: none"> <li>• Implemented PL/SQL functions to manage over 40,000 students' data for financial aid, admission and registration.</li> <li>• Designed and developed web services with HTML/Javascript for managing and providing access to nearly 8,000 college courses.</li> </ul>  |                            |
| <b>Software Engineer, IBM, Taiwan</b>  | <b>Jul. 2011-Sep. 2014</b> |
| <ul style="list-style-type: none"> <li>• Applied programming skills (C/C++) to develop cross-platform (Window, Linux, AIX) process management library. Integrated system libraries to spawn, terminate and monitor processes. Applied interprocess communication and synchronization techniques (multithreads/multiprocess) to coordinate different processes. Extended our tool's ability to test and validate IBM System X servers with multiple processes.</li> <li>• Applied programming skills (C/C++) to develop cross-platform (Window, Linux, AIX) memory management library. Integrated system libraries to allocate, read/write and deallocate memories. Researched on the Linux memory allocation algorithm and identified the limitations on memory stress testing of our testing tool.</li> <li>• Conducted troubleshooting and identified hardware and software issues across different platforms including out-of-memory, CPU idle states, IO scheduling, etc.</li> </ul> |                            |

**PROGRAMMING SKILLS**

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| <ul style="list-style-type: none"> <li>• Programming Languages: C/C++, Python, Go, Java</li> <li>• Web Development: HTML, CSS, Javascript, Groovy/Grails, Django</li> </ul> | <ul style="list-style-type: none"> <li>• Machine Learning: Tensorflow, Keras, Jupyter</li> <li>• Database Management: PL/SQL, HDFS</li> </ul> |
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