

## Education

- University of Illinois at Urbana-Champaign (United States) May 2020  
*Master of Science, Computer Science (GPA: 3.83/4.00)*
- University of Washington (United States) June 2015  
*Bachelor of Science, Computer Science major, Mathematics minor (GPA: 3.82/4.00)*
- Westtown School (United States) June 2011  
*High School Diploma*

## Work Experience

- **Software Engineering Internship**, Google, Sunnyvale June 19–August 19
- **Software Engineering Internship**, Google, Mountain View June 17–August 17
- **Software Engineering Internship**, Google, Mountain View June 16–August 16
- **Graduate Research Assistant**, University of Illinois at Urbana-Champaign August 2015–December 2019
- **Undergraduate Research Assistant**, Programming Languages and Software Engineering, UW CSE January 14–Present
  - Implemented Format Checker Framework extension for Java Internationalization
  - Implemented Format Checker Framework: Format String Checker to guarantee that no errors related to string formatting can occur at run time
- **Teaching Assistant**, CSE 421: Design and Analysis of Algorithms Autumn 2013
- **Teaching Assistant**, CSE 373: Data Structures and Algorithms Winter 2013
- **Research Assistant**, Center for Game Science, UW CSE July–September 2012
  - Implemented Dragon Box, an algebra game for teaching middle school students in ActionScript 3
  - Implemented data parser, expression trees to represent game states, and a logging system storing player statistics
- **Problem Setter**, Thailand Olympiad in Informatics October 2010–March 2011
  - Created algorithmic problems and test cases
- **Instructor and Problem Setter**, Thailand Olympiad in Informatics Preparatory Session 2009–2010

## Publications

- **Siwakorn Srisakaokul**, Yuhao Zhang, Zexuan Zhong, Wei Yang, Tao Xie, and Bo Li. MulDef: Multi-model-based Defense Against Adversarial Examples for Neural Networks. arXiv: 1809.00065
- Wing Lam, **Siwakorn Srisakaokul**, Blake Bassett, Peyman Mahdian, Tao Xie, Pratap Lakshman, and Jonathan de Halleux. A Characteristic Study of Parameterized Unit Tests in .NET Open Source Projects. In Proceedings of the 32nd European Conference on Object-Oriented Programming (ECOOP 2018), Amsterdam, Netherlands, July 2018.
- Angello Astorga, **Siwakorn Srisakaokul**, Xusheng Xiao, and Tao Xie. PreInfer: Automatic Inference of Preconditions via Symbolic Analysis. In Proceedings of the 48th IEEE/IFIP International Conference on Dependable Systems and Networks (DSN 2018), Luxembourg, June 2018.
- **Siwakorn Srisakaokul**, Zhengkai Wu, Angello Astorga, Oreoluwa Alebiosu, and Tao Xie. Multiple-Implementation Testing of Supervised Learning Software. In Proceedings of the AAAI-18 Workshop on Engineering Dependable and Secure Machine Learning Systems (EDSMLS 2018), co-located with AAAI 2018, New Orleans, LA, February 2018.
- Konstantin Weitz, Gene Kim, Siwakorn Srisakaokul, Michael D. Ernst. A Type System for Format Strings. In *Proceedings of the 2014 International Symposium on Software Testing and Analysis (ISSTA'14)*. ACM New York, NY, USA, 127–137.
- Konstantin Weitz, Siwakorn Srisakaokul, Gene Kim, Michael D. Ernst. A Format String Checker for Java. In *Proceedings of the 2014 International Symposium on Software Testing and Analysis (ISSTA'14)*. ACM New York, NY, USA, 441–444.

## Awards, Honors, and Scholarships

- **Royal Thai Scholarship** from the Development and Promotion of Science and Technology Talents Project (DPST), Royal Thai Government, Thailand, to study Computer Science through the Doctoral Degree in the USA 2010–Present
- 603<sup>rd</sup> place in Round 2, **Google Code Jam 2019**, the worldwide programming contest organized by Google

- 254<sup>th</sup> place in Round 3, **Google Code Jam 2014**, the worldwide programming contest organized by Google
- Awarded **Ray Ozzie Computer Science Fellowship**, UIUC 2015
- **ACM International Collegiate Programming Contest (ACM-ICPC)** 2012–2016
  - Qualified to participate in the ACM-ICPC World Finals 2016
  - 5<sup>th</sup> place (Division I), Pacific Northwest Region 2014
  - 1<sup>st</sup> place, UW Local ACM programming contest 2014
  - 8<sup>th</sup> place, Pacific Northwest Region 2013
  - 1<sup>st</sup> place, UW Local ACM programming contest 2013
  - 10<sup>th</sup> place, Pacific Northwest Region 2012
  - 2<sup>nd</sup> place, UW Local ACM programming contest 2012
- **Codility Golden Award for the Silicium 2014 Challenge** July 2014
- 1<sup>st</sup> place, **UW Coding Challenge by Square** February 2014
- 1<sup>st</sup> place, **UW Coding Challenge by Startup** January 2014
- 1<sup>st</sup> place, **UW Amazon Computer Programming Contest** March 2014
- 1<sup>st</sup> place, **UW Amazon Computer Programming Contest** February 2013
- Top three winners, **Nutanix Code Jam Contest** January 2012
- **Finalist for the Representatives of Thailand** in International Olympiad in Informatics 2010
- **Thailand Olympiad in Informatics**: Gold medal with a perfect score 2009
- **Thailand National Grid Technology Innovation Contest 2009**: Silver medal 2009
- **Thailand Mathematics Olympiad 2008**: Bronze medal 2008

## Projects and Implementations

- **OS161 project**, implementing synchronization, system calls, virtual memory, and memory management. Quarter-Long Group Project, CSE 451 Introduction of Operating System Spring 2014
- **MiniJava Compiler Project**, writing a compiler for MiniJava, a smaller version of Java. The project consisted of writing scanner, parser, semantics analysis, and code generation. Quarter-Long Group Project, CSE 401 Introduction of Compiler Construction Winter 2014
- **Codeforces Parser**, an application to parse data from a Codeforces online programming contest. It can log in to the contest page, extract the data from the source page, and show the results of programs run against these sample input and output data. Github: <https://github.com/ping128/CodeforcesParser> Personal Project 2014
- **Pacman Project**, writing search algorithms and techniques such as Minimax, Expectimax, Markov Decision Processes, and Reinforcement Learning for better Pacman gameplay. Quarter-Long Individual Project, CSE 473 Introduction to Artificial Intelligence Spring 2013
- **Simple Egrep**, converting regular expressions into nondeterministic finite automata (NFAs) and into deterministic finite state automata (DFAs) to improve performance. Extra-credit Individual Project, CSE 333 System Programming Winter 2013
- **UW Campus Maps**, a simple application using Java GUI. It can calculate the shortest paths between any two buildings on the campus and show the routes on the map. Quarter-Long Individual Project, CSE 331 Software Design and Implementation Spring 2012

## Programming Languages

- C/C++, Java, Python, R, Matlab, L<sup>A</sup>T<sub>E</sub>X, Racket, Haskell, Prolog
- Web programming: HTML, PHP, JavaScript, CSS, SQL