## Pi Songkuntham

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EDUCATION

#### Princeton University, NJ, United States

Ph.D. Computer Science, September 2019 -

#### Wesleyan University, CT, United States

B.A. Computer Science, May 2019, Phi Beta Kappa

#### ACADEMIC EXPERIENCE

## Department of Computer Science, Wesleyan University

Research in the Sciences Fellow

May 2017 - June 2018

- Designed protocols for anti-censorship on the Internet that can authenticate across multiple user connections.
- Tested the design feasibility in TLS 1.3 in UNIX/Linux environment using OpenSSL.
- Wrote efficient bash scripts to collect protocol data from Alexa's top 500 websites to support and narrow down design.

#### Department of Computer Science, Wesleyan University

Research in the Sciences Fellow

May - July 2016

• Used OCaml to develop a tool for extracting execution cost information from functional programs.

#### Department of Computer Science, Wesleyan University

Course Assistant

- Graded homework, held weekly office hours and lab involving debugging others' code, explaining complex concepts in the following courses.
  - Functional Programming, Daniel Licata (Spring 2017)
  - Algorithms and Complexity, Daniel Licata (Fall 2018)
  - Information Security, Sebastian Zimmeck (Fall 2018)
  - Programming Language Implementation, Norman Danner (Spring 2019)

## Publications

# MultiFlow: Cross-Connection Decoy Routing using TLS 1.3 Session Resumption

Victoria Manfredi, Pi Songkuntham

In Proc. of 8th USENIX Workshop on Free and Open Communications on the Internet (FOCI), 2018, 8 pages

## Internships

## Google

Software Engineering Intern (PhD)

June - August 2019

• Will work on Dart programming language.

#### Google

Software Engineering Intern

June - August 2018

- Implemented and launched the full stack of quick response feature for internal Gmail using Dart, Angular, and Java.
- Improved efficiency for agents of all Google products who communicate via email with Google's clients.

Awards

#### Michael Rice Prize

Awarded for excellence in computer science to a senior

2019

## Freeman Scholarship

Merit-based full-tuition scholarship

2015-2019

#### ACTIVITIES

## Cornell, Maryland, Max Planck Pre-doctoral Research School Scholar 2018

Scholarship awarded by Max Planck Society to attend the summer school at MPI-SWS. Learned about emerging trends in computer science research, interacted with leading scientists and research students.

#### Oracle Scholar 2018

Scholarship awarded by Oracle Academy to attend OurCS, research-focused workshop in computer science at Indiana University. Worked on mobile device location estimation based on RSSI of Bluetooth beacons.

## Grace Hopper Celebration Scholar 2018

Scholarship awarded by AnitaB.org to attend the celebration of women in computing.

## Wesleyan Women in Science Steering Committee

Led and participated in events that seek to promote access to resources, build supportive community for women in STEM.

#### Projects

#### Distributed Hash Table

A Python implementation of distributed key-value datastore using a distributed hash table with a simplified version of Paxos used as the consensus algorithm.

#### Reliable Data Transfer

Java implementations of application-level Stop-and-Wait, Go-Back-N, Selective Repeat over UDP.

#### Cardinal Course [on GitHub]

Course review site for students to post ratings and share course reviews.

## Word Challenge [on GitHub]

Anagram game and anagram solver in pure JavaScript.

#### Wasiddhi Run [on GitHub]

Endless running game using Phaser JavaScript library.