

# Pop Sornsak Thiravechyan

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## EDUCATION

**Purdue University** | *West Lafayette, IN*

*Graduated: May 2019*

*B.S. in Computer Science*

*Relevant Coursework:* Operating Systems, Computer Security, Intro to Cryptography, Intro to the Analysis of Algorithms, Intro to Database Systems, Information Systems, Virtual Reality Applications, Systems Programming, Computer Architecture, Data Structure and Algorithms, Problem Solving & Object-Oriented Programming

## WORK EXPERIENCE

**IT Support Intern** | *Chotipatr Glass Co., Ltd.*

*May-Aug 2018*

- Updated the company's computer infrastructure and saved 30% of the cost compared to buying pre-packaged hardware.
- Designed the spec, sourced components, and assembled 10 PCs for required usage at optimal performance and minimum cost.

## PERSONAL PROJECTS

**Endless Maze** | *HTML, CSS, JavaScript*

*August 2017*

- Procedurally generate a playable maze using Eller's algorithm that expands in a Fibonacci sequence after each level.
- Wrote a solver using the Wall Follower algorithm and visualizes it in real-time.

**VR Music Visualizer** | *Unreal Engine 4*

*May 2017*

- VR enabled real-time music visualizer using particle system.

**xkcd Scraper** | *Bash*

*October 2016*

- Wrote a Bash script for downloading a range of pages from the xkcd webcomic by scraping the image portions of each page.

**Word Dungeon** | *Ruby*

*August 2016*

- While teaching myself Ruby, created a text adventure game where users can spawn players, explore the dungeon, and add rooms.

## CLASS PROJECTS

**Buffer-Overflow Vulnerability** | *C*

*October 2018*

- Exploited the vulnerability of a program that has the buffer-overflow problem to gain the root privilege.

**Cross-Site Scripting Attack** | *JavaScript*

*November 2018*

- Launched an XSS attack on a modified social network web application to spread XSS worm among users.

**Operating System Project** | *C*

*November 2018*

- Implemented a heap memory management system, IPC mechanisms, and a read/write lock system.

## SERVICE

**Purdue EPICS Service Learning Design Program** | *West Lafayette, IN*

*May 2016*

- Modified a curriculum for teaching middle school students distance estimation through experimentation with mousetrap cars.
- Improved the sturdiness of the mousetrap car by changing the axle shape from circular to square and elongating the car body.

**Sustainable Farm Volunteer** | *Pai, Thailand*

*June 2013*

- Volunteered at a traditional organic farm to practice sustainable farming principles and help grow produce.

**Thailand's ROTC** | *Bangkok, Thailand*

*2011-2013*

- Trained in the military part-time as part of the national youth reserve.

## SKILLS & INTERESTS

**Programming & Technologies:** C/C++, Java, HTML, CSS, JavaScript, Unreal Engine 4, PL/SQL, Hadoop/Spark

**Languages:** English (fluent), Thai (native)

**Interests:** Longboarding, Fantasy Web Novels, Scuba Diving (Certified), Emergency Responder (Trained)