

karenfyx@gmail.com  
karenfyx.github.io  
LinkedIn  
(416) 399-2358  
254 Phillip Street,  
Waterloo, Ontario

## Education

- University of Waterloo, Bachelor of Computer Science, 2014-2019

## Skill

### Languages

- Python, C++, Java  
C, Bash, Lua, Curl  
JavaScript, HTML/CSS

### Tools

- PostgreSQL, MongoDB  
OpenGL, AWS, Git  
AngularJS, Bootstrap

## Course Work

- Computer Graphics
- Artificial Intelligence
- Computer Networks
- Computer Security and Privacy
- Concurrent & Parallel Programming
- Algorithm and Data Structure
- Operating System

# Karen Fu

4th year, Computer Science, University of Waterloo

## Experience

### Software Developer, Scotiabank — May 2016 - Sept. 2016, Toronto

- Developed a configuration management tool for complex risk monitoring system using Spring, AngularJS and Bootstrap, providing easy access to system tuning
- Streamlined end-of-day risk assessment to deliver essential daily reports from massive data using Python
- Coordinated effectively with business team during development; shortened deployment cycle and improved maintainability of the system

### Web Developer, ROCaircraft — Aug. 2015 - Dec. 2015, Shanghai

- Worked on front-end enhancements in PHP, implemented email subscription feature and search engine optimization
- Utilized multiple email service APIs to automate email launching process for better customer response and delivery rate
- Designed cross-platform compatible email campaigns

## Projects

### 3D Maze Game, C++ — Jan. 2019

- 3D Maze game built from scratch using OpenGL rendering and geometric primitives

### Machine Learning Classifier, Python — Nov. 2018

- Supervised-learning program to classify data, adjusted with cross-validation to maximize precision level

### Android Photo Album, Java — Oct. 2018

- Responsive photo browsing app, leveraged caching for optimized user experience

### Network Protocol, Python — May 2018

- Implementation of packet exchange protocol that algorithmically configures routing table

### Padding Oracle, Python — Aug. 2018

- Inspected security vulnerability on a sample web application and performed padding oracle attack for study purpose

### Concurrent Vending Machine, C++ — Nov. 2017

- Simulation of concurrent activities at a vending machine including purchases, money transfer and stock updates

### Kernel, C — Sep. 2017

- Low-level implementation of a kernel's primary function, such as system calls, synchronization and memory management

## Summary

- A fast learner, a team player and a problem solver