

# Yunkai Wang

SOFTWARE DEVELOPER

Ottawa, ON

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## Education

### Carleton University

Ottawa, ON

M.C.S. COMPUTER SCIENCE

Jan. 2020 - Current

- Research in Computational Geometry. GPA: 11.4/12. Expected June 2021.
- **Select courses:** Statistical and Syntactic Pattern Recognition, AI-enabled Software Verification and Testing, Algorithms for Data Science.

B.C.S. COMPUTER SCIENCE

Sep. 2014 - Jun. 2019

- Algorithms Stream with Minor in Mathematics. GPA: 11.67/12.
- **Select courses:** Object-Oriented Software Engineering, Abstract Data Types and Algorithms, Operating Systems, Artificial Intelligence, Neural Networks, Database Management Systems, Real-Time Concurrent Systems, Design and Analysis of Algorithms, Linear Algebra, Calculus.

## Skills

**Languages** Python, Java, C, C++ JavaScript (Node.js), SQL

**Platforms** AWS, Linux (Ubuntu), Windows, Mac

**Technologies** Git, Scikit-learn, Tensorflow, React Native, EC2 instance, Eclipse, Visual Studio Code

## Experience

### Open Source Integration Developer

Ottawa, ON

BLINDSIDE NETWORK INC.

May. 2018 - Aug. 2018

- Installed and integrated BigBlueButton with Zimbra and OpenEdx to manage entire activities at one spot and improve online learning process.

### Java Developer

Ottawa, ON

ESPIAL GROUP INC.

Sep. 2016 - Dec. 2016

- Collaborated in an Agile team; maintained and upgraded containerized applications; executed automated tests for app efficiency enhancement.

Additional experience as **Programmer** and **Teaching Assistant** at Carleton University.

## Projects

### Smart Snake

Carleton U.

[github.com/yunkaiwang/SmartSnake](https://github.com/yunkaiwang/SmartSnake)

2018

- Established an AI technique to play simple board games and analyzed the limitation of the technique.
- Evolving neural network with genetic algorithm with randomly initialized parameters to serve as the initial population.

### TFTP File Transfer System

Carleton U.

[github.com/yunkaiwang/TFTPFileTransferSystem](https://github.com/yunkaiwang/TFTPFileTransferSystem)

2018

- A fully-functional file transfer system implemented based on the TFTP specification; implemented using Java.

### Retrieve

Carleton U.

[github.com/Jasonjys/retrieve](https://github.com/Jasonjys/retrieve)

2017

- A lost-and-found mobile app developed using React Native and deployed in the iOS system.
- Created and applied chat functionality; implemented EC2 server for managing search and chat requests.

### JESB, Jira to Elasticsearch Bridge

Espial

- Enabled automatic generation of team statistics and store these data in Elastic Search; implemented using Node.js.

## Publications

2021 **Simple Linear Time Algorithms For Piercing Pairwise Intersecting Disks**, A. Biniarz, P. Bose, Y. Wang.

WADS

2019 **A Proposed Method for Designing Diagnostic Mathematics Tests**, K. Cheung, B. Stevens, Y. Wang.

eJMT