

# Yu (Kevin) Fu

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github.com/yufutotg

## EXPERIENCE

### UBER MAPS NAVIGATION | SOFTWARE ENGINEER

Jan 2018 – April 2018

- Reduced route queries by 50% and improved navigation guidance by adding waypoint requests to navigation engine. (Java)
- Researched graph partitioning algorithms to potentially improve route query speed by 18% and storage reduction of 10%. (Java, Python)
- Reduced execution time of an offline graph processing pipeline by 3 hours through increased parallelism.

### ESOLUTIONS GROUP | SOFTWARE DEVELOPER

Sep 2016 – Dec 2016

- Reduced website setup time from one day to under 30 minutes by writing scripts to make REST API calls. (PowerShell, SQL)
- Developed and deployed 8 websites (out of 15 sites total from the team) for large cities and corporations using the company's internal content management system. (.Net, SQL)

### KPMG | SR. SOFTWARE DEVELOPER

Jan 2016 – Apr 2016

- Built an application to improve the tax return preparation process, saving 3 to 5 days of development time per client. Generated tax returns for over 4,000 individuals. (VBA)
- Prototyped UI for new international tax software. (C#, .Net)

### KPMG | SOFTWARE DEVELOPER

Sep 2014 – Dec 2014

- Rebuilt platform to host complex dynamic questionnaire websites that filed tax returns for over 5,000 individuals. (C#, .Net)
- Wrote tools and macros handling client data to save weeks of manual work. (VBA, Excel)

## PERSONAL PROJECTS

### FLOW SOLVING ALGORITHM | PYTHON

May 2017 – Present

- Designed algorithm to solve a phone puzzle game named Flow.
- Reduced search space by contracting edges of the grid based on the clustered points.
- Determined unsolvable stages to reduce width of the search tree.

### TETRIS | PYTHON - PYGAME

Aug 2017

- Implemented real time tetris game based on Tetris Battle GUI.
- Emphasized smooth and intuitive game mechanics.

## SKILLS

### LANGUAGES:

Python • Java • C • C++  
C# • PowerShell • JavaScript  
SQL • Scheme

### TOOLS:

Pygame • Numpy  
Linux • Git • Vim

## EDUCATION

### UNIVERSITY OF WATERLOO

FOURTH YEAR COMPUTER SCIENCE

MUSIC MINOR

Expected April 2019

## COURSEWORK

Algorithms  
Operating Systems  
User Interfaces  
Numerical Computation  
Artificial Intelligence  
Concurrent & Parallel Programming

## EXTRA CURRICULARS

### MUSICAL DIRECTOR:

Musical Director at UWaterloo

A Cappella Club 2016 - 2018

- Lead weekly beatboxing, music theory and sound tech workshops.
- Performed at numerous concerts with over 700 patrons.
- Sound engineered for several concerts.

Conductor at St. Cecilia's Youth

Orchestra 2013 - 2016

- Three years of professional conducting experience.
- Built spreadsheets tools to organize and streamline executive tasks.

### HOBBIES:

Skiing • Badminton  
Martial Arts • Music