

# XuLin Yang

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## PROFILE/SUMMARY:

02/2017 – 02/2020 The University Of Melbourne – Bachelor of Science

Major: Computing and Software System

Wam: 82.353

Expected Graduation in 2020

## Why I am interested in this job?

I am interested in this job because I think what I can use my professional knowledge to solve work problems. Although I have no previous work experience, with my high distinction academic transcript and patience, I think I am capable of this job, and can make a contribution.

## Personal Project:

GitHub address: <https://github.com/yangxvlin?tab=repositories>

01/2018 – 01/2019 **Java:** Arcade Game "Shadow Leap" using UML to finalize the object-oriented design, Slick graphics library to build a user graphic interface to make a game which player controls a frog to cross the dangerous road.

- Able to analysis the requirement of the system.
- Able to design the functionality of the component essential for the system.
- Able to implement in well-formatted java code and make a high-quality game program with good performance.

**Python & Data mining:** Collecting date from a public online data resource centre "Aurin", and applying python programming skills with Numpy, Pandas and etc python libraries to analyzing data in the communities and health domains. And finally, come up with a report of investigation results and deliver a presentation about the report.

- Able to collect data from an online resource.
- Able to apply data analysis and mining skills to study the data.
- Use the results from the study of Data to improve the local community health service and potential improvement in regional health level.

**C:** Develop a text search engine based on an inverted file index to querying words by array-based accumulation approach and queue-based multi-way merge approach. Analyze and optimize real-world runtime and memory consumption in a report.

Develop a spell corrector to correct misspelling words in a text document by hash table approach and linear search approach both with edit distance. Analyze and optimize real-world runtime and memory consumption in a report.

- **Choose a high-efficiency data structure for the program.**
- **Able to analyse the performance of the program.**

01/2017 – 01/2018

**System Design:** I play a role as leader to lead a group of 6 people to come up with pumping, storage and delivery of water to a remote community using renewable energy resources. Use Matlab to model real-world environment to come up with an effective design including pumping water to a customized tank with energy supplied by a 3-D printed wind turbine. To realize such a huge design, team communication skills and teamwork management is vital.

- **Collaborated with teams from various country to work on a project to complete the system model and design.**
- **Lead the discussions and determined which members contributed.**

**C:** Develop a program that generates a scored and ranked document of words like an online search engine. And returns topped ranked lines of words.

Develop a path finding a program in four direction grid world “Gridsville” for Uber-like service and print out the optimal path for users.

- **Analysis of real-world problems and choose suitable algorithms to solve them.**

### Technical Skills:

Languages	Tools	Operating System	Level
Java	IntelliJ, Eclipse	Windows XP	Expert
C	GCC, Clion, Mingw, Cygwin	Windows XP	Expert
Python	Jupyter Notebook, Skt-learn, Pycharm	Windows XP	Expert
SQL	MySQL	Windows XP	Intermediate
R	Rstudio	Windows XP	Intermediate
UML	Visual Paradigm		Intermediate
HTML			Intermediate
Matlab			Intermediate