

## Juye Xiao

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### EDUCATION

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#### UNIVERSITY OF MICHIGAN

Ann Arbor, MI, USA

Bachelor of Science in Computer Science; Bachelor of Science in Data Science

**Overall GPA: 3.72**

**Relevant Coursework:** Programming and Data Structure, Data Structure and Algorithm, Introduction of Computer Organization

*University Honors*

May.2019

#### PENNSYLVINNA STATE UNIVERSITY

University Park, PA, USA

Bachelor of Science in Mathematics; Bachelor of Science in Computer Science

**Major GPA: 4.0      Overall GPA: 4.0**

Aug.2017–May.2018

**Relevant Coursework:** Linear Algebra, Discrete Math, Calculus, Differential Equation, Introduction of Digital System and Design, Introduction of Python, Introduction of Java, Elementary Statistics

*The President's Freshman Award*

April.2018

*Dean's List*

FA 2017 & SP 2018

#### HIGH SCHOOL AFFILIATED TO RENMIN UNIVERSITY OF CHINA

Beijing, China

*Honor Class*

Sep.2013-Jun.2016

### EXPERIENCES

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#### Internship, Gamecore, Beijing, China, May.2018-July.2018

- Identify and reorganized the tags in documents. (Ruby, CSS, HTML)
- Collaborated with team members to gather information and composed news about video games

### COURSE PROJECTS

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#### Logic design in digital systems (Verilog)

- Write Top-level Verilog modules using gate-level model or behavioral model and run it on the DE1-Soc FPGA board.
- Design and implement modules that demonstrate counter, half adder, adder, LED array, and timing hazard using logic gates, encoder, decoder, and different flip-flops.

#### LC-2K (C)

- Write an assembler to translate assembly-language program into machine language and write a cycle-accurate behavioral simulator for a pipelined implementation of the LC-2K.
- Simulate a CPU cache and write a Cache simulator for LC-2K.

#### Log file management (C++)

- Reading an input file containing log entries, user can perform category, keywords, and timestamp search on log file.

#### Traveling salesman (C++)

- Implement Minimum Spanning Tree algorithm.
- Use Branch and Bound algorithm to find an optimal solution.

#### Identifying subjects of posts (C++)

- Write a program that can automatically identify the subject of posts from Piazza.
- Use recursion, binary trees, templates, comparators, map, and a simplified version of a "Multi-Variate Bernoulli Naive Bayes Classifier" to classify the Piazza posts.

#### Star War Simulator (C++)

- Write a program that works similarly with a stock market simulator. Using the priority queue, running median, and streaming algorithm to simulate the battles on different planet and give the most exciting war (In stock market, give the point which to buy and sell later to achieve the highest profit)
- Implement the pairing priority queue interface.

### LEADERSHIP

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#### Vice Minister of Treasure, Active member of Event Planning, ACES Dance Club, Sep.2017-Sep.2018

- Applied for UPAC funds, managed the ASA account
- Gave performance in kinds of university-run activities, including THON Dance Marathon.
- Organized banquet, showcase, Mid-Autumn Party, and the Voice of CUSA-PSU, etc.
- In charge of Stage setting, garment management, and after-show banquets

#### Team leader, Economic Research and Learning Group, Sep.2014-Jun.2015

- Led the team to gather and analyze data of disposed batteries' negative impact on farmland.
- Led the team to simplify the Contingent Valuation Method and build mathematical modeling to evaluate the negative externalities of used batteries pollution.

### ADDITIONAL SKILLS

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**Technical Skills:** Python, Java, C, C++, Unix, Verilog