

# Lihua (Neo) Pei

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## Summary:

- Now major in Data Analytics. Have one-year programming experience in actual research projects, and now focus on studying machine learning combining with statistic models.
- Familiar with various software methodology, programming languages and development tools.
- Enthusiastic about research and studies related to statistics and machine learning, prepared for further study and research in combine machine learning and statistic business.

## Education:

### **Bachelor in Applied mathematics and Statistics (AMS)**

- Stony Brook University, Stony Brook, NY
- CGPA: 3.55/4.00
- *Sep 2014 to Dec 2017*

### **Master in Data Analytics**

- George Washington University, Washington, DC
- *Sep 2018 to ...*

## Skills:

### **Computer Skills**

- Programming Languages: Java, Python, C, MATLAB, R and SAS
- The Capability of managing and developing programs with Java and Python
- Data Analysis: Statistic data analysis (R and SAS)
- Advanced Photoshop Designer
- Parallel Computing: MPI

## **Language Skills**

- English (Professional and proficiency in reading and writing)
- Chinese (Native)

## **Other Skills**

- Self-motivated
- Team Leadership
- Well Known Excel and PowerPoint

## **Experience:**

### **Job Experience:**

#### Computer Coin Developing: Scheduling Project Design

*Grand Central Tech, NY, Scala Computing (Jan 2018 – May 2018)*

- Design the whitepaper which purposes a new reinforcement model PANDA (Policy Advisor Network and Decision Architecture) applies the reinforcement learning to arrange consumer jobs for certain computer power resource.
- Response to design and build all diagrams and graphs.
- Programming the preliminary simulation and implementing PANDA model.

#### Android Games Development

*Hong Kong, China, Fire Pillar Studio (June 2017 - Present)*

- Develop a deep-learning program MIB (make it breath) which can auto recognize the characters in pictures and make characters have a certain action like breath.
- Collect and Build a database for deep-learning training.
- Response to art and virtual design.

#### HPC Research Assistant

*Shandong, China, Ginan National High-Performance Computing Center (May 2018 – July 2018)*

- Maintain equipment.

- Fix and replace the broken parts.
- Assist HPC test experiment.

### **Graduate Research Project:**

#### Optimal Topologies Searching Research Guided by Prof. Yuefan Deng

*Stony Brook, NY, Stony Brook University (Aug 2017 - Present)*

- Design and implement an algorithm to generate degree-3 topologies with 64 nodes.
- Successfully find the optimal topologies of 64K3 (shortest mean path).
- Design the experiment to test five MPI broadcast methods on Taishan Cluster to collect data and build speedup curve for different topologies.
- Participate in research in optimizing topology graph for cluster broadcasting.

#### Parallel Matrix Multiplication Research Guided by Prof. Yuefan Deng

*Stony Brook, NY, Stony Brook University (Dec 2017 - Present)*

- Proposed an algorithmic group that covers Cannon's, BMR, SUMMA, distributed Strassen's method for scalable parallel large-scale matrix multiplications.
- Currently as the second author working on paper deft to generate a function which aims to collect the existing method and predict the future parallel matrix multiplications' methods.

### **Summer on Campus Internship**

#### Team A.I.R (International Student Registration Team)

*Stony Brook, NY, Stony Brook University (Summer 2016 and Summer 2017)*

- The senior leader of the group.
- Assist new international student registration.
- Responsible for training new employees and organize teamwork.
- Proposed and create official WeChat account for more efficient communication with Chinese international incoming students.

- Orientation Leader.

On Campus Food Service

*Stony Brook, NY, Stony Brook University (Oct 2015 – May 2017)*

- Food Service at Campus Sac restaurant.
- Earned FSA (Faculty Student Associate) Scholarship.