Xiao Ling

+1(919)917-3227 | xling4@ncsu.edu | LinkedIn

504 Meredith Anne Court, Apt 305, Raleigh, NC, 27606

Education

North Carolina State University **2019.8 – 2023.5 (Expected)**

- Doctor of Philosophy in Computer Science
- Coursework: Algorithm, Numerical Analysis, Graphics, Artificial Intelligent.

North Carolina State University **2017.8 – 2019.5**

- Master of Science in Applied Mathematics
- Coursework: Numerical Analysis, C/C++/Python for Mathematicians, Machine Learning, Computer Algebra, Matrix Theory, Linear Programming, Statistical Inference.

Methodist University **2013.8 – 2017.5**

- Bachelor of Science in Computer Science and Mathematics, GPA: 3.758
- Coursework: Object Orientated Programming in Java, Data structure and Algorithm, Database Management Systems, Automated Learning and Data Analysis, Operating System, Programming Language.

WORK EXPERIENCE

***Teaching Assistant,* Zhejiang University, Foreign Language Education Department,** **2016.6 – 2016.8**

- Instructed SAT math, physics, and chemistry.
- Took attendance, helped students with English learning, and managed discipline of the classroom.

***Assistant,* Bank of Communication, Information and Technology Department,** **2015.12 – 2016.2**

- Designed internal REST API which used across all team. (Spring)
- Fixed bug and implemented J2EE web program, connected to internal Mysql Database.
- Used Linux to control the programs and data exchange.
- Experienced how information system structure works in the bank.

***Assistant to Professor (Dr. House)*, Computer Science Department, Methodist University,** **2014.8 – 2017.5**

- Assistant in CSC 201 (Visual Basic) and CSC 220 (Assembly Language).

PROJECTS & COMPETITIONS

Link Crawler and Information Collection **2019.9 – 2019.10**

- Building a template by using Beautiful Soup package and WebDriver package in python to collect all the target links from websites.
- Analyzing the links and extracting useful information by using Beautiful Soup package.

Neural Ordinary Differential Equation Model retrieval **2019.3 – 2019.5**

- Retrieving the method of Continuous Normalizing Flows by using python. Training and testing the model on many object images. Results show that the model has very high accuracy after the 30^{th} image in each object.

Automated Detection of Lesion in CT Image by using Python **2018.9 – 2018.12**

- Using Convolutional Neural Network and U-Net to train almost 30,000 CT images and construct the neural network to detect lesions and identify the bounding boxes of the lesion area.
- Testing the model on the test dataset. The least square error shows our model can locate the bounding boxes of the lesion area with very high accuracy. This task is the first step of automated lesion detection, diagnosis, and comparison.

Course Online Platform connects with Database Management System, **2015.8 – 2015.12**

- An individual project programmed by Visual Basic that has functions for students and instructor to connect with each other.
- Writing a relational database management system that stores tables of data by using MySQL. The data includes all information from students and instructor.
- Program that connects with database plays functions on searching basic information of students and instructor, sending email in running program, and chatting with others in program, etc.

Square Root Calculator in Assembly Language by using Recursion Algorithm, **2014.8 – 2014.12**

- An individual project based on the recursion algorithm that applied in the Assembly Language. It's a PCSpim application that by only performing basic integer addition, subtraction, and multiplication to calculate the square root of an integer, which up to ten decimal places.
- Testing the program by randomly selecting numbers from the range of 1 to 200. All results show that the program can take square root very accurate in ten decimal places.

***Participant,* ACM Mid-Atlantic Regional Programming Contest** **2015.11 and 2016.11**

- Represented school at the ACM programming competition at Duke University.
- Ranked 119 and 91 among all teams for two competitions.

SKILLS

- **Programming** – Proficient in Java and Python 3, Visual Basic, Assembly Language, SQL, R, Javascript, HTML
- **Software** – Eclipse, NetBeans, PCSpim, LaTex, Rstudio, Visual Studio, Matlab, Microsoft Excel. PyCharm
- **Language Skill** – Fluent in Chinese and English