# Wenjun Zhao

# Personal Data

Gender: Female

Date of Birth: 28 March 1995

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# Education

Sept 2016- PhD, Atmosphere Ocean Science and Mathematics

(Current) New York University

Courant Institute of Mathematical Sciences Center for Atmosphere Ocean Science

Aug 2012- BSc, Mathematics

-June 2016 University of Science and Technology of China

Department: School for the Gifted Young

Major: Information & Computational Mathematics

July 2015 – Visiting Student

-Sept 2015 University of Oxford, Department of Computer Science

# Honors

Since Sept 2016 MacCracken Fellowship of New York University

July 2015 Fellowship for Summer Program at the University of Oxford Feb 2015 Meritorious Winner in the Mathematical Contest in Modeling

# Research Interests

- Mathematical Models
  - Stochastic Processes in Application
  - Numerical Methods

# Computer Skills

C, Java, MATLAB, Mathematica, LATEX, Linux

# Academic Experiences

#### July-Sept 2015

Took part in a summer project at University of Oxford

Model Verification for Partially Observable Stochastic Hybrid System

Supervisor: Prof. Alessandro Abate

Wrote a code based on the point-based algorithm developed by Dr.Kendra Lesser in MATLAB and Java to generate a discrete model to do model verification of Partially Observable Markov Decision Process (POMDP) in both single-objective and multi-objective situations. Designed a GUI to guarantee the intelligence of the software which will be available online in the future.

#### Aug 2015

Attended a conference at University of Oxford

New Direction In Numerical Computation

#### June 2015

Conducted a class project of Wavelet Analysis

A Wavelet-based Image Retrieval System

Supervisor: Prof. Juyong Zhang

Made abstractions of 1000 given pictures by getting their wavelet coefficients and defining a feature vector based on these matrices with MATLAB. Analyzed the Precision-Recall (PR) curve of the results and tested the stability.

Feb-July 2015 | Worked as a teaching assistant of Multivariable Calculus

#### Feb 2015

Participated in the Mathematical Contest in Modeling

Macro Scheduling in Face of Ebola

Set up models about spreading trends of disease, transportation methods and allocation of medicine and vaccinates in Africa with MATLAB, Mathematica and C within a team of three undergraduate students. Responsible for the allocation system and paper writing.

### June 2013

Took part in project contest of *Electromagnetics* 

Numerical Method Solving the Resistance of Grid Problems

Gave numerical solutions to resistance problems about finite and infinite grids under various circumstances using circuit analysis method and programming with MATLAB and Mathematica. Studied the properties of the solution.

#### June 2013

Conducted a class project of Life Science: Brain and Cognition

Synesthesia-the Bond between Smell and Memory

Designed experiments with control variable method to check if the bond between smell and memory exists. Analyzed the data to support the hypothesis.