

Tianshu Bao

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GitHub: <https://github.com/tianshubao1> Web: <http://www.tianshubao.com/>

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Educational Background

Stony Brook University, M.S. in Applied Mathematics Aug.2013 – May.2015

➤ **GPA:** 3.40/4.00; **Core Courses:** Algorithm Analysis, Computational Geometry, Fundamentals Of Computing

Shanghai Maritime University, B.E. in Transportation Engineering Aug.2009 – May.2013

➤ **GPA:** 3.40/4.00; **Core Courses:** Data Structure, Web development, Java Programming, Database

Skills

Programming Language: Java, HTML/CSS, Bootstrap, JavaScript, jQuery, SQL

Tool: Eclipse, Github, MySQL, MATLAB, Visual Studio, SPSS, AutoCad, Vissim

Platform: Windows, Linux

Employment

Research Assistant **AMS department at Stony Brook University** May.2014 – May.2015

➤ Used various typical examples (matrix market) to test existing finite element algorithm.

➤ Provided and implemented new approaches (P-Minres and Null Space method) to solve constrained optimization problems. Using **Matlab, SSH, Bitbucket.**

Research Assistant **BMI Department at Stony Brook University** Aug.2014 – Jan.2015

➤ Made 2D medical images processing (segmentation, registration and edge detection) and 3D medical images reconstruction (iso surface, marching cube)

➤ Collected Data from Super Resolution Microscope and reserved samples, using **N-SIM Nikon, STORM**

Customer Support, Intern **Haitong Security Company, China** Jul.2011 – Sep.2011

➤ Helped front end dealing with customer issues, organized and processed customer data, using **MS excel** and **word**

Research and Projects

Patent For A New Type Of Interchange

➤ Design a new type of interchange which can highly increase the efficiency of road capacity. Using **Vissim, AutoCad.**

➤ **Patent number:** China Patent, 201120332296.9.

Points Founding (https://github.com/tianshubao1/Non_dominated_Points_GUI):

➤ Implemented a GUI regarding an existing algorithm, value input and mouse click event are supported.

Using **Java.awt, Java.swing**

Alien Shooting (https://github.com/tianshubao1/Java_game):

➤ Implemented a small Java game, mouse press, animation, mouse moved, synchronized approaches are supported. Using **Java.awt, Java.swing**

Course work for Fundamentals of Scientific Computing (<http://www.tianshubao.com/>):

➤ Designed my homepage web, using **HTML, CSS, Bootstrap, JavaScript, jQuery.**

A New Method To Solving Poission Equation (<https://github.com/tianshubao1/Solving-Poission-Equation>):

➤ Use LU decomposition and Double Sweep to solve a specific 2D partial differential equation with initial condition and boundary value, using **C++** and **Matlab**

Categorization And Analysis For Wine Quality

➤ Used ANOVA to analyze significant difference between different groups of data and extracted the PC from various indexes and use clustering method to do classification, using **SPSS, Matlab, MS Office**