

# RUI ZHI

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## Education

### North Carolina State University

NC, USA

Ph.D. in Computer Science GPA: 4.0/4.0

Aug.2014 - May.2019 (expected)

### Beijing University of Chemical Technology

Beijing, China

B.E. in Computer Science GPA: 3.79/4.0 Ranked 1/126

Sept.2010 - July.2014

## Experience

### Teaching Assistant *North Carolina State University, NC, United States*

Aug.2014 - Present

- Assisted with answering students' questions and providing hints to write assembly-language programs.

*Skills: x86 Assembly Language*

### Research Assistant *Chinese Academy of Sciences, Beijing, China*

Sept.2013 - June.2014

- Assisted with the development of 3D faces reconstruction based on a morphable model.

*Skills: MATLAB C++ OpenGL OpenCV*

## Projects

### Building Netflix Prize Prediction Model

Sept.2015 - Dec.2015

- Worked in a team of three to create movie rating prediction models using classification techniques including Decision Tree, SVM, ANN and KNN.

- Compared different prediction models based on root-mean-square error (RMSE).

*Skills: R MATLAB Java MySQL*

### Guess It - A Spanish Words Learning Game

Jan.2015 - May.2015

- Worked in a team of three with different majors to create an educational game to teach Spanish words.

- Designed, implemented and tested the game. Demo online: <http://goo.gl/BEJg42>

- Being used in Elementary Spanish course for online students as coursework.

*Skills: Unity3D C#*

### RobotArena - Game Artificial Intelligence

Jan.2015 - May.2015

- Worked in a team of three to create an AI game, which focuses on decision making and strategies for virtual robots to compete in the arena, using decision tree, state machine, Dirichlet domain and A\* techniques.

- Implemented steering behaviors of virtual robots including attack, seek, evade, wander, etc.

- Open sourced on GitHub. Demo video: <https://goo.gl/pbSojF>

*Skills: Java Processing API L<sup>A</sup>T<sub>E</sub>X*

### Library Study Group Finder

Sept.2014 - Dec.2014

- Worked in a team of four to create a web-based study group finder system.

- Designed the UI of the website along with HCI principles.

- Open sourced on GitHub.

*Skills: ASP.NET SQL Server Javascript CSS JQuery Bootstrap L<sup>A</sup>T<sub>E</sub>X*

### 3D Face Reconstruction Based on a Single Image

Sept.2013 - June.2014

- Studied related algorithms such as Optical Flow, TPS, AAM, 3DMM.

- Built a system which can create 3D face automatically through a 2D face image.

*Skills: MATLAB C++ OpenCV OpenGL*

### Tiny C Compiler Lexical Analysis and Semantic Analysis

Mar.2013 - July.2013

- Implemented a Lexical Analyser by converting the regular expressions to minimized DFA.

- Implemented a Syntax Analyser for LL(1) and LR(0) grammar.

*Skills: Java C*