Zhao FU

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➢ Education

Tsinghua University, Beijing **2011-2015(expected)**
B.E. degree candidate in Computer Science (GPA: 90, Rank: 18 out of 123 students)

No.4 High School, Beijing **2008-2011**

➢ Competitions & Awards

1st prize in National Olympiad in Informatics in Province (NOIP), Senior Group **2009**
1st prize (Rank: 1) in Chinese Physics Olympiad Beijing and 2nd prize in CPhO final **2010**
Top 8 in AI Competition of Sougou Cup in Tsinghua University **2012**
Top 25% (90/473) in KDD Cup 2014 competition **2014**

➢ Research Experiences

Model Reconstruction Based on Point Cloud **September, 2014 – Present**
Joint project of Tsinghua University and Washington University in St. Louis
Mentor: Prof. Tao Ju

- Coplanar detection and optimization of feature-lines for interactions
- Symmetry detection and optimization of feature-lines for interactions
- Shifting/rotation detection and optimization of feature-lines for interactions (still continue)

High-Order Aberration Correcting **July, 2014 – September, 2014**
Roorda Lab, Vision Science, UC Berkeley
Mentor: Prof. Brian Barsky

- Practiced follow-up experiment for the paper of *Eyeglasses-free Display: Towards Correcting Visual Aberrations with Computational Light Field Displays* published in SIGGRAPH 2014
- Improved the speed and robustness of the algorithm by reversing the calculating direction
- Design effective experiments by deducing optics formulas

Interactive Image-Guided Modeling **March, 2014 – June, 2014**
Joint project of Tsinghua University and Washington University in St. Louis
Mentor: Prof. Tao Ju and Prof. Shimin Hu

- Published *Interactive Image-Guided Modeling of Extruded Shapes* in Pacific Graphics conference as the third author (Best student paper award)
- Estimated parameters of camera through user interactions
- Implemented optimization of normal of planes

Video Segmentation **October, 2013 – January, 2014**
Research Program of Signal Processing Course
Mentor: Prof. Mingxing Xu

- Successfully segmented a TV series according to plot changes
- Extracted image/audio features to estimate the distance between frames
- Created a framework to iteratively remove cuts and merge neighborhood periods

Student Research Training Program **March, 2013 – October, 2013**
Graphics & Geometry Computing Group, Tsinghua University
Mentor: Prof. Shimin Hu

- Implemented basic algorithms of image editing(Poisson Editing and Poisson Matting)
- Implemented the basic algorithm of Sketch Based Shape Retrieval
- Programmed RBM neural network for feature extracting of 3D models

➢ Small Projects

Kinect Based Interactive Game **June, 2014**
Course Project for Multimedia Technologies

- Developed a robust interactive game using Kinect for Windows SDK
- Recognized waving up/down, hitting left/right and Specific word sound
- Recognized color of objects hold in hands

Never Late-Facebook Web Application **February, 2014**
Hackathon Held by Facebook in Singapore

- An application to punish people who are late for parties through facebook status
- Developed the front end for the web application

Bomber-Android Version Game **October, 2013 – January, 2014**
Course Project for Software Engineering

- Leader of the project
- Developed an online multi-player RTS android game

Valley Storm-AI Competition Platform **January, 2013 – May, 2013**
Project for Sougo Cup AI Competition

- Developed the logic kernel of the game platform for Sougou Cup
- Kept maintaining algorithm and game balance during the competition

MNIST Digits Recognition **March, 2013 – April, 2013**
Course Project for Artificial Neural Networks

- Programmed BP and RBM neural networks for handwriting digit recognition
- Rank 2nd in this class

➢ Extra-Curricular Activities

Minister of Student Association for Science and Technology **June, 2013 – June, 2014**

- Gave Information Session of our competition to different universities
- Lead fellow students developing the logic kernel
- Gave interpreter show for our competition

Break Dance **2012 – Present**

- Performed street-dancing with DK5-Crew several times in Tsinghua

Volunteer Guide **May, 2013**

- Volunteered to guide kids in visiting the Science and Technology Museum

➢ Professional Skills

Programming Language: C, C++, Matlab, Java, Python, AMPL, VHDL
Frameworks & Applications: OpenCV, OpenFrameworks, QT
Algorithms & Knowledge: image processing, machine learning, parallel programming

➢ Interests

StarCraft II, Basketball, Break Dance