Zhao FU

Mobile: (86)1361-104-0490
Email: fuzerg1@gmail.com
Homepage: http://fuzerg.github.io

Education

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

Research Experiences

High-Order Aberration Correcting July, 2014 – September, 2014
Computer Graphics and 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
- Designed effective optics experiments using camera and lenses

Interactive Image-Guided Modeling of Extruded Shapes March, 2014 – June, 2014
Joint project of Tsinghua University and Washington University in St. Louis
Mentor: Prof. Tao Ju and Prof. Shimin Hu
- Estimated the relative position of cameras for different photos
- Optimized the normal of planes based on 2D register
- Testing different cases of modeling

Video Segmentation October, 2013 – January, 2014
Research Program of Signal Processing Course
Mentor: Prof. Mingxing Xu
- Segmented a TV series according to plot changes
- Extracted image/audio features to estimate the distance between frames
- Created an algorithm 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

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

Publications

- "Interactive Image-Guided Modeling of Extruded Shapes"
  Proceedings of Pacific Graphics 2014, Computer Graphics Forum, Vol. 33, No. 7, 2014.
  Yan-Pei Cao, Tao Ju, **Zhao Fu**, Shi-Min Hu

Small Projects

Kinect Based Interactive Game — June, 2014

Course Project for Multimedia Technologies

- Developed a robust interactive game using Kinect for Windows SDK
- Recognized body actions and 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 & Skills: 3D modeling, image processing, machine learning, parallel programming

Interests

StarCraft II, Basketball, Break Dance