Ruofei Du

F0903028, 800 Dongchuan Road, Minhang District, Shanghai 200240, P.R.China
Email: xiaoxinghai@gmail.com Tel: (+86) 135-5251-5828 Website: www.duruofei.com

EDUCATION

Bachelor of Science in Engineering, ACM Class, Shanghai Jiao Tong University, Sep. 2009 – Jul. 2013
GRE: Verbal **720/800**, Quantitative **800/800**, Analytical Writing **3.5/6**, GPA: 87.1/100 overall, 89.5/100 in junior year.
I am interested in general **Human-Computer Interaction**, especially **interactive graphics** and **augmented reality**.
Besides, I love exploring the world of **Computer Vision**, especially 3D reconstruction and tracking.

PUBLICATIONS

[1] **Ruofei Du**, Renjie Liu, Tianxiang Wu, Baoliang Lu, *Online Vigilance Analysis Combining Video and Electrooculography Features*, in the proceeding of the 19th International Conference on Neural Information Processing (ICONIP), vol. V, pp. 447-453, 2012. [PDF][Oral Presentation]
[2] Renjie Liu, **Ruofei Du**, Baoliang Lu, *Facial Expression Recognition Combining Texture and Geometrical Features*, in the proceeding of Service Science and Engineering (SSE), 2012 [PDF]
[3] **Selected Artworks:** MSRA Postcards, BCMI Logo, EXPO Poster, ACM Class Anniversary Album

RESEARCH EXPERIENCE

Full-time Research Intern, Microsoft Research Asia Jul. 2012 – Jan. 2013

- Computer Vision: co-supervised by Zhiwei Li, Richard Cai and Lei Zhang
  - Design and implement a real-time multi-view based 3D surface reconstruction system. [**10,000 lines of C++**]
  - Devise and present a real-time augmented reality system at Microsoft TAB 2012 and Student TechFest 2012.
  - Cooperate with my advisors on a confidential paper about image segmentation and submit to **CVPR 2013**.
  - Investigate topics including *tracking*, *calibration*, *segmentation*, and *silhouette propagation*.
- Human-Computer Interaction, co-supervised by Xiang Cao and Koji Yatani
  - Participate actively in the seminar of paper discussion and the group brainstorm meeting once a week.
  - Investigate topics including *tangible UI*, *interactive graphics*, *InfoVis*, *cooperative work* and etc.

Research Assistant, Center for Brain-Like Computing and Machine Intelligence, SJTU Jul. 2011 –Jul. 2013

- Computer Vision and Electrooculography on Vigilance Analysis, supervised by Prof. Baoliang Lu
  - Extract robust features of eye movements and train a supervised appearance model for fatigue detection.
  - My demo won the second prize on the *China International Industry Fair* (CIIF) in November, 2011.
- Computer Vision and Machine Learning on Facial Expression, supervised by Prof. Baoliang Lu
  - Improve the performance of facial expression recognition using fuzzy integral on ASM and Gabor features.

Research Assistant, Eye Tracking Lab, SJTU Sep. 2010 –Apr. 2011

- Human-Computer Interaction, supervised by **Prof. Zhanxun Dong**
  - Conceptualize and implement a set of real-time interaction recognition algorithms based on Tobii T60 Eye Tracker for gazing, eye movement, bending over and back, head rotation, translation, shaking and nodding.
  - Designed a 3D world wander system and an eye-control cellphone prototype. (It was the first!)
  - This project was ranked A+ in SJTU 18th Participation in Research Program.

Founder of Text Tagging Team, *tag.duruofei.com*, advised by **Prof.** Kenny Q. Zhu Mar. 2012 – Jun. 2012

- Developed an online text tagging system based on Bayesian network classifier and categorized models.

COURSE PROJECTS

Complier Online Judge System (*DBMS Laboratory*), scored **92 / 100**, used by 40 students Spring 2012

- Design and implement the database, framework of an Online Judge System for CS 216 in 2012.

Multi-specification compliant IOT Code Resolution Service platform based on DNS Spring 2012

- Coordinate 9 groups including 31 undergraduates and 3 graduates as a project manager, scored **96 / 100**.

Japanese Corpus (A+ for the 20th Participation in Research Program) Fall 2011

- Lead a five-people team to implement a search engine for a Japanese Corpus with millions of articles.
- The website at tesol.sjtu.edu.cn/corpus is widely used by students in our Japanese Department.

Nachos OS (Operating System Laboratory), scored **92 / 100** Fall 2011

- Implement thread management, multi-programming, virtual memory, file system, based on Nachos running on a simulated MIPS machine used by CS162 of UC Berkeley.

TeNet (Computer Network Laboratory), scored **96 / 100** Fall 2011

- Read papers and implement ARP, L2 Switch, IP, TCP and Dynamic Routing algorithms.

Compiler for Tiger (Project Workshop of Compiler Principles) scored **94 / 100**, Spring 2010

- Complete compiler implementation for Tiger language, from lexical analysis to code generation with optimizations including dead code erasing, copy propagation and peephole.

AWARDS

Winner Prize at MSRA Intern Postcard Design Contest, 2012.
Academic Excellence Scholarship (First-class, top 1%) in Shanghai Jiao Tong University, 2012.
Second Prize, China Undergraduate Mathematical Contest in Modeling, 2011.
Scholarship from **Schneider Electric** (**1 out of 300**), 2010.
First Prizes (top 4) in Nation Olympiad in Informatics in Provinces (NOIP), PRC, 2006-2008.

SERVICES HONOR

Teacher Assistant for the course Programming Practice for Computing Algorithm, Summer 2011
Volunteer Star Award for excellent service in the World EXPO 2010, Shanghai
President of the English Corner in SJTU, 2010-2011, organized several competitions.
Class Vice President of the ACM Class 2009.

HOBBIES &SKILLS

Harmonica, **Piano**, Speech, Cucurbit Flute, **Sketch**, **Calligraphy**, Swimming, Table Tennis.
C/C++/CX/C#, Open CV/GL, Matlab, Java, PHP, HTML5, JavaScript, CSS, LaTeX, Verilog, Pascal