# Ling Zhan

## **Contact**

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■ Blog : <a href="http://lealzhan.github.io">http://lealzhan.github.io</a>

■ Resume: <a href="http://lingzhan.deercv.com/">http://lingzhan.deercv.com/</a>

## **Personal Information**

■ Name: Ling Zhan (詹令)

 Degree: M.S. in Mechanical Engineering, Carnegie Mellon University (Graduate: 2013.12)

■ Work Experience: 2~3 years

# **Work Experience**

# NetDragon Websoft Inc., Fuzhou, China(2016.7~2016.11)

#### **Game Engine Researcher**

- Developed and maintained game terrain editor based on in-house game engine (C++, Lua, xml).
- Developed an automatically-delta-update tool for game assets based on Jenkins.

## Avatar Works, Xiamen, China (2015.8 ~ 2016.7)

### **3D Engine Engineer**

- Programmed shaders for pc and mobile platforms: physically based rendering, real-time sss skin rendering, eye rendering, full screen effect, cloth rendering.
- Customized particle system for special effects.
- Developed tools for artists.
- Developed an example-based human motion animation algorithm for reach and grasp (Skeleton Animation, k-Nearest Neighbor, Inverse Kinematic, Motion Interpolation, Discrete Collision Detection).

# **Graphicchina**, Hanzhou, China (2014.11 ~ 2015.8)

### **Software R&D Engineer**

- Was one of the key members to develop the state-of-the-art cloth simulation system.
- Had good knowledge of numerical method, parallel

programming(CUDA, thrust, SSE/AVX), collision detection, cloth simulation algorithm, and mesh optimization.

Recruited new people.

# <u>ArcelorMittal R&D Center</u>, East Chicago, USA (2013.5 ~ 2013.8, 2014.4 ~ 2014.8)

### **R&D Engineer | Intern**

Applied Computer Fluid Dynamics and Digital Geometry Processing in the analysis and improvement of steel-making process.

# Computational Bio-Modeling Lab at Carnegie Mellon University, Pittsburgh, USA ( 2012.08~2013.5, 2013.09~2013.12 )

#### **Graduate Research Assistant**

- Developed quad-dominant mesh generation algorithm based on harmonic function and <u>bubble dynamics</u>.
- Conduct fluid-structure interaction simulation for cerebral aneurysms using ANSYS.

## **Education**

Carnegie Mellon University, Pittsburgh, PA, USA ( 2012.8 ~ 2013.12 )

M.S. in Mechanical Engineering, GPA:3.88/4.0

Coursework: Computer Graphics, Mechanics of Complex Fluids, Computer Aided Design, Finite Element Method, Engineering Computation, JAVA J2EE Programming, Computational Bio-Modeling and Visualization

# Harbin Institute of Technology, Harbin, China (2008.8 ~ 2012.7)

B.E. in Aerospace Engineering and Mechanics, GPA: 85/100

# National Cheng Kung University, Tainan, Taiwan, China (2010.9 ~ 2011.1)

Exchange Student in Mechanical Engineering, GPA: 3.77/4.0

## **Others**

### **Publications**

- Tathagata Bhattacharya, Ling Zhan and Bernard Chukwulebe. "Design Considerations of Supersonic Oxygen Lances for a Basic Oxygen Furnace (BOF)". Accepted in SCANMET V, 2016, Lulea, Sweden [LINK]
- T. Bhattacharya, L. Zhan and B. Chukwulebe. "A Numerical Test Bench for Supersonic Oxygen Nozzles and Its Application to the BOF Process". Feature Article, the Iron & Steel Technology magazine of AIST, April 2015 [LINK]
- T. Bhattacharya, L. Zhan. "A Numerical Test Bench for Supersonic Oxygen Nozzles and Its Application to the BOF Process", AISTech Proceedings, 2014 [LINK]
- H. Zhang, Y. Jiao, E. Johnson, L. Zhan, Y. Zhang, K. Shimada. "Modeling Anisotropic Material Property of Cerebral Aneurysms for Fluid-Structure Interaction Simulation", Computer Methods in Biomechanics and

### **Presentations**

- Physically Based Rendering [LINK]
- Research projects during my postgraduate period [LINK]
- Class projects during my postgraduate period [LINK]

### **Skills**

- C/C++, MATLAB , Python, Java
- Visual Studio, Xcode, SVN/Git
- Computer Graphics, Digital Geometry Processing
- Parallel Programming (OpenMP, CUDA, thrust, SSE/AVX)
- Numerical Methods , Finite Element Method, Computational Fluid Dynamics
- Knowledge in Deep Learning, django web framework, Android NDK

### Misc

- 2012, TOEFL: 93 GRE: 800+630+3.5
- 2012, U.S. Interdisciplinary Contest in Modeling, Honorable Mention
- 2010, Excellent Volunteer of Harbin Institute of Technology
- 2010, Experimental Contest in Mechanics, National Third Prize

# Thanks for watching. I'm looking forward to joining your company.