PERSONAL INFORMATION

Name: Guowei Lu/Peter
Date of Birth: 1983
Email: bjfubjfu@gmail.com
Github: Link

PROFILE

I am a master student at Utrecht University and intending to find a job in computer graphics field. I have been a technical leader with 11 years working experience in China. I am proficient in graphics 2D/3D programming and have a professional experience in performance optimizations.

Education

09/2018 – Now
Major: Game and Media Technology
Degree: **Master**
School: Natural Sciences
University: Utrecht University

- Relevant Courses:
  - Advanced Graphics, Optimization and Vectorization, Game Physics, Computer Vision, Geometric Algorithm, Motion and Manipulation, Crowd Simulation
- Small Project: 'Streaming Bidirectional Path Tracing based on Light House 2'
- Average grade: 8.8/10

09/2002 – 07/2006
Major: Information Management & Information System
Degree: **Bachelor**
School: Information Science & Technology
University: Beijing Forestry University (Project 211 list)

- Relevant Courses:
  - Mathematics: Advanced Mathematics(calculus), Discrete Mathematics, Mathematical Statistics, Linear Algebra
  - Computer Science: Object Oriented Programming Language, Database, Data Structure, Computer Graphics, Operating Systems
- Thesis design: 'Development of small digital image processing software package'(grade: B/Good)
- Average grade: 8/10

PROFESSIONAL EXPERIENCE

11/2012 – 08/2018
Technical Leader
R&D Department, **SuperMap**, Chengdu
Responsible for web virtual globe engine

- Designed one data specification for rapidly streaming, distributing and rendering large volumes of 3D content
- Implemented performance optimizations for real-time massive model rendering in the Browser

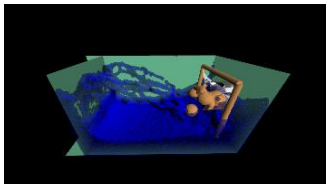
07/2006 – 11/2012
Engineer & Senior Engineer
R&D Department, **SuperMap**, Beijing
Participated in building mapping module for map application

- Designed and Provided graphics 2D API
- Worked on symbol library and thematic map
- Supported multi-platform environment e.g. Windows, Linux and Android

** SuperMap is a GIS software products and services provider and IT enterprise with 3000+ employees*

PROJECTS

2019 **SBDPT, Project,** C++, Cuda
A BDPT render system based on Light House. It is a streaming bidirectional path tracing, it supports energy conservation, caustic and Optix Prime wavefront pipeline.



2019 **Fluid Simulation, Project,** C++, Compute shader
Position Based Fluid Simulation, the final project of game physics project. It supports the collision among rigid body, clothes and fluid.

2019 **Action Recognition, Project,** Python, Keras, tensorflow
A CNN based on Keras to recognize human action, the final project of computer vision. It supports data augmentation, transfer learning and automatic model search.

2017 **Examples for Cesium, Hobby,** JavaScript, WebGL
A demo gallery for Cesium with these practical functions and examples. It supports mapbox vector tile, height map terrain and dynamic data visualization.

2016 **S3M (Spatial 3D Model), Company,** WebGL, C++
A specification for rapidly streaming and distributing large volumes of 3D content. The viewer could view the models at the city level in the browser with many effects such as water reflection. This work belongs to the company.

ACHIEVEMENTS

Innovation Award

2016 *SuperMap iClient 3D for WebGL: a virtual globe engine for web applications. Team of 6.*

2008 *Mapping Module of SuperMap iObject: a C++ library for mapping application on Windows, Linux and UNIX. Team of 8.*

2001 **National High School Mathematics League**
National 3rd prize, provincial 1st prize

SKILLS

- Computer Language
  - Proficient: C++, JavaScript
  - Working knowledge: Cuda, Python (keras, tensorflow)
- Technologies/Other
  - Proficient: Physically Based Rendering, Virtual Earth, WebGL
  - Working knowledge: Visual Studio, Visual Code

INTERESTS & ADDITIONAL INFORMATION

- A fan and little contributor of Cesium(An open-source JavaScript library for world-class 3D globes and maps)
- A technical **writer** with 1400+ subscribers currently
- Reading, writing, coding, travelling