PERSONAL INFORMATION

Name: Guowei Lu/Peter

PROFILE

I have been a technical leader with 11 years working experience. I am intending to gain more academic knowledge as a student. I am proficient in graphics 2D/3D programming and have a professional experience in performance optimizations.

PROFESSIONAL EXPERIENCE

11/2012 – Now	**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
- Worked on data visualization and analysis in the Browser
- Implemented Shader Programming for line styles such as dash/arrow line

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
- Set C++ style guide
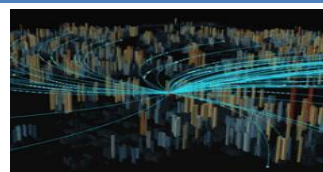- Managed a team of 8 engineers

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

Education

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

PROJECTS

2017   Data Visualization Demos, Hobby, JavaScript, WebGL

 I created 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++

I designed 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.

2016	**Data analysis/visualization, Company,** WebGL, Shader
	I applied shader especially stencil buffer and depth buffer to calculate the analytical result for data visualization. Real-time sightline visibility and elevation contour line e.g. (Note: green region is visible and red one is invisible from the viewpoint)
2013	**Sunmap, Hobby,** C++, cocos2d-x API
	Using cocos2d-x API I've created a map application for iOS, Android, Windows and Mac OS. It supports basic touch/mouse events, adding custom geometry, selecting map providers and mbtiles for tiles cache.

ACHIEVEMENTS

	Innovation Award
2016	*SuperMap iClient 3D for WebGL: a virtual globe engine for web applications. Team of 6.*
2011	*SuperMap iObject for Mobile: a C++ library for mapping application on Android and Symbian. Team of 6.*
2008	*Mapping Module of SuperMap iObject: a C++ library for mapping application on Windows, Linux and UNIX. Team of 8.*
2013	**Individual Contribution Award**
	Topic: how to augment map visualization with HTML5
	Key Words: UTFGrid, vector tile, heatmap, D3.js
2005	**Innovation E-cup of School** – 2nd Place winner
	A *simple website. Team of 3.*
2001	**National High School Mathematics League**
	National 3rd prize, provincial 1st prize
1998	**110m hurdles & 4*100m relay**
	1st Place winner in the district's sports meeting (more than 15 middle schools)

* Innovation Award is the biggest team award in my company

SKILLS

- Computer Language
  - Proficient: C++, JavaScript
  - Working knowledge: Python, Java, Regular expressions, Shell
- Technologies/Other
  - Proficient: Virtual Earth, WebGL, OpenGL, HTML5, GDI
  - Working knowledge: Visual Studio, SVN, CMake, OGRE, AGG

INTERESTS & ADDITIONAL INFORMATION

- A **contributor** to Cesium Project, contribution ranking:48/141
- A technical **writer** with 550+ subscribers currently
- Reading, writing, coding, travelling