陆国伟

13350878871 • peter6.lu@gmail.com • Github • 出生: 1983

简介

本人有多年的 GIS 研发经验，对图形学有浓厚的兴趣，主要涉及基于物理的渲染（Physically based rendering），三维 GIS，虚拟地球（Virtual earth）和可微分渲染（Differentiable rendering）等领域。

工作经历

工程师/部门经理，研发中心---北京超图软件，北京/成都　　2006 年 7 月 - 2018 年 7 月

- 虚拟地球：负责 WebGL 新产品研发，包括全球影像与地形，模型等模块的预研，跨产品团队的协调合作，个人实现了海量 3D 数据（倾斜摄影，点云，BIM）的生成，Web 端（实例化）渲染和动态数据可视化等功能
- 制图模块：负责二维地图模块，针对矢量，栅格等多源数据的跨平台（Windows, Linux, Android, Unix）渲染，以及专题图，符号等渲染风格的实现

教育经历

Utrecht University, the Netherlands　　2018 年 9 月 – 2020 年 8 月

硕士 计算机科学---游戏与多媒体专业

- 主要课程: Advanced Graphics, Optimization and Vectorization, Game Physics, Computer Vision, Geometric Algorithm, Motion and Manipulation, Crowd Simulation
- 硕士论文: 'Gradient-Domain Volume Rendering'(分数: 8.5/10)
- GPA: 8.73/10

北京林业大学　　2002 年 9 月 – 2006 年 6 月

本科 信息管理与信息系统

项目经历

双向路径追踪渲染引擎 • C++, CUDA • 2019

基于 CUDA 和 wavefront 框架的双向路径追踪渲染引擎. #**Optix**, **wavefront**

流体模拟 • C++, Compute shader • 2019

基于位置的流体模拟. #**碰撞，刚体，布料**

人体行为识别 • Python, Keras, tensorflow • 2019

训练神经网络识别人体行为 #**Stanford-40 dataset，数据增强，迁移学习**

Cesium 教程 & **示例** • JS, WebGL • 2017

Cesium 教程以及范例集. #**MapBox 矢量切片, ESRI 高度图，动态数据可视化**

***更多内容请访问项目集**

主要成就

优秀毕业生（Cum Laude）　　2020

企业创新奖（团队）　　2016/2008

全国高中数学联赛山东省一等奖，全国三等奖　　2001

其他

编程语言　　C++, JS, Python, CUDA, WebGL

语言　　英语(中等，雅思 7)，普通话

兴趣　　技术写作（公众号 LET0-0）跑步

GUOWEI (Peter) LU

peter6.lu@gmail.com • Github • DoB: 1983

PROFILE

I have many years of experience in GIS research and development, and have a strong interest in graphics, mainly related to the fields of physically based rendering, 3D GIS, virtual earth, and differentiable rendering.

EMPLOYMENT

Engineer/Department manager, R&D Department, SuperMap, Beijing/Chengdu, China Jul. 2006 - Jun. 2018

- Virtual Earth: I am responsible for the development of new WebGL products, including the pre-research of global imaging and terrain, models and other modules, the coordination and cooperation of cross-product teams, I personally realized the generation of massive 3D data (oblique photography, point cloud, BIM), and the (instanced)rendering and dynamic data visualization in the Browser.
- Map Module: I am responsible for the 2D map module, including rendering for vector, raster, and other multi-source data in cross-platform (Windows, Linux, Android, Unix), and the realization of rendering styles such as thematic maps and symbols

EDUCATION

Utrecht University, the Netherlands Sep. 2018 – Sep.2020

M.Sc. in Computer Science, Game and Media

- Courses: Advanced Graphics, Optimization and Vectorization, Game Physics, Computer Vision, Geometric Algorithm, , Motion and Manipulation, Crowd Simulation
- Master Thesis: 'Gradient-Domain Volume Rendering'(grade: 8.5/10)
- GPA: 8.73/10

Beijing Forestry University, China Sep. 2002 - Jun. 2006

B.Sc. in Information Management & Information System

PROJECTS

SBDPT • C++, CUDA • 2019

A streaming bidirectional path tracing rendering system. #**Optix**, **wavefront.**

Fluid Simulation • C++, Compute shader • 2019

Position Based Fluid Simulation. #**collision, rigid body, clothes.**

Action Recognition • Python, Keras, tensorflow • 2019

A CNN architecture to classify human actions #**Stanford-40 dataset, data augmentation, transfer learning.**

Cesium tutorial(Chinese) & Demos • JS, WebGL • 2017

Cesium tutorials written in Chinese and a gallery of Cesium demos. #**MapBox vector tile, ESRI height map terrain, dynamic data visualization.**

**For all projects, please visit my project portfolio.*

ACHIEVEMENTS

Graduation with Cum Laude	2020
Innovation Award (Company, team)	2016/2008
National High School Mathematics League, National 3rd prize, Provincial 1st prize	2001

MISCELLANEOUS

Programming Language	C++, JS, Python, CUDA, WebGL
Oral & Written	English(medium, IELTS 7), Mandarin(Native)
Hobbies	Technical writing, running