Kun Liu

Summary

I am currently a data scientist at MediaGamma Ltd. I design and build automatic solutions to address large-scale machine learning problems in computational advertising. From 2013 to 2016, I was a research associate at University College London (UCL). I worked on a geospatial big data project called IQmulus which provided a platform to process massive amounts of geospatial data and serve useful knowledge by processing algorithms developed by the project. From 2010 to 2013, I was a Ph.D. researcher at the ALICE team of INRIA (French Institute for Research in Computer Science and Automation). I carried out extensive research which proposed novel methods to process 3D data acquired by multiple cameras. I received my doctorate in computer science from Institut National Polytechnique de Lorraine. Please see my LinkedIn profile `https://www.linkedin.com/in/kwunlyou` for more information.

Specialities

Machine Learning, Data Analysis, Optimization, Numerical Analysis

Skills & Expertise

Programming	Python, C++, Scala
Libraries	Apache Spark, Scikit-learn, SuiteSparse, OpenGL, QT
Operating Systems	Linux, macOS, Windows
Others	Amazon AWS, Git, Jenkins, Docker

Experience

2016 - Present **Data Scientist**, *MediaGamma Ltd*, United Kingdom.
As a data scientist, I am developing applications for programmatic advertising by applying cutting-edge machine learning technologies. The role is to design and build automatic solutions which address large-scale machine learning problems in computational advertising.

2013 - 2016 **Research associate**, *University College London*, United Kingdom.
I am a contributor to the project IQmulus (`http://www.iqmulus.eu/`) funded by European Commission. This project aims to create a high-volume fusion and analysis platform for large geospatial datasets. I am developing and implementing methods to process large LiDAR datasets using the state-of-the-art cluster computing engine Apache Spark.

2010 - 2013 **PhD researcher**, *INRIA-Nancy Grand-Est*, France.
I was involved in the project Physigrafix which combines acquisition techniques, geometry, and mechanics to develop simulation models that accurately reproduces realistic deformation. My work aims to develop specialized methods suitable for processing point data originating from multi-view reconstruction.

Education

2010 - 2013 **PhD candidate**, Computer Science, Institut National Polytechnique de Lorraine.

2008 - 2010 **M.S.**, Applied Mathematics, Zhejiang University.
Excellent Graduation Thesis in Zhejiang University

2004 - 2008 **B.S**, Mathematics, Zhejiang University.
Excellent Graduation Thesis in Zhejiang University
Overall GPA: 3.82/4.0 (87.22/100)
GPA of the last two years: 3.86/4.0 (89.75/100)

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Languages

English	Professional working proficiency
Mandarin Chinese	Native

Honors & Awards

2005	Excellent Undergraduate of the year
2005	Scholarship of State-level Training Base
2007	Scholarship of State-level Training Base
2009	Excellent Graduate Scholarship of the year

Publications

Change Detection of Mobile LiDAR Data using Cloud Computing
Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., 2016
Authors: **Kun Liu**, Jan Boehm, Christian Alis
http://www.int-arch-photogramm-remote-sens-spatial-inf-sci.net/XLI-B3/309/2016/

Classification of Big Point Cloud Data using Cloud Computing
Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XL-3/W3, 553-557, 2015
Authors: **Kun Liu**, Jan Boehm
http://www.int-arch-photogramm-remote-sens-spatial-inf-sci.net/XL-3-W3/553/2015/

Sphere Packing Aided Surface Reconstruction for Multi-view Data
10th International Symposium on Visual Computing (ISVC), 2014
Authors: **Kun Liu**, Patricio A. Galindo, Rhaleb Zayer
https://link.springer.com/chapter/10.1007/978-3-319-14364-4_17

A New Framework For Interactive Segmentation of Point Clouds
Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XL-5, 357-362, 2014
Authors: **Kun Liu**, Jan Boehm
http://www.int-arch-photogramm-remote-sens-spatial-inf-sci.net/XL-5/357/2014/

Bundle Adjustment Constrained Smoothing For Multi-View Point Cloud Data
8th International Symposium on Visual Computing (ISVC), 2012
Authors: **Kun Liu**, Rhaleb Zayer
https://link.springer.com/chapter/10.1007/978-3-642-33179-4_13

Paint Mesh Cutting
Computer Graphic Forum (Proceedings of Eurographics 2011)
Authors: Lubin Fan, Ligang Liu, **Kun Liu**
http://onlinelibrary.wiley.com/wol1/doi/10.1111/j.1467-8659.2011.01895.x/full

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