# 肖 煜东

## 教育

2012 至今 **清华大学**, 硕士, 计算机科学与技术, 导师: 张磊, 将于 2015 年毕业.

2008-2012 北京邮电大学, 本科, 计算机科学与技术.

### 实习经历

2014.04-09 微软亚洲研究院,软件分析组,数据挖掘实习生.

基于微软分布式计算平台 COSMOS,参与开发了改进新型模式挖掘的时间序列异常检测系统,已优化至成熟版本。

2012.04-08 华为诺亚方舟实验室, 数据挖掘实习生.

基于 Hadoop 平台,对庞大的历史故障日志,实现 Apriori 关联算法进行电信器件故障分析。

2011.09-12 北京人人公司, iOS 开发实习生.

参与每日推荐 iOS 客户端两个线上版本的开发,保证了无明显 bug。

# 社区

Blog imsheridan.com, 技术博客.

GitHub github.com/imsheridan,参与和创建过多个开源项目.

# 项目经历

#### 2014-至今 Emerging Pattern Mining, CSharp, COSMOS.

Emerging Pattern Mining 是一个研究成果转化为内部分析工具的项目,旨在找出多维时间序列数据中出现显著变化的真正原因。

我作为微软亚洲研究院软件分析组的全职实习生,负责设计和实现一款基于微软分布式平台 COSMOS 的分布式异常检测系统,主要分为三个模块:基于庞大日志信息,使用 FP-Close 关联挖掘算法进行频繁集挖掘;对于时间序列的线性数据以及周期性数据,区别对待进行异常点检测;使用最大信息熵算法对结果进行去除冗余以及重要性排序。

#### 2013–2014 **DeLogo**, *Matlab*, Research Project.

Working with Liheng Bian, Prof. Lei Zhang, Prof. Jinli Suo and Prof. Qionghai Dai.

DeLogo is a video logo removal system that can automatically and perfectly remove and repair the logo area. Mathematically, we treat inpainting as a global optimization with a linear system incorporating both the temporal video consistency and the priors of the inpainting regions. Further, we propose a numerical solution to above optimization based on Augmented Lagrangian Method.

I was the major contributor of this project and the paper has been accepted in ICIP '14.

2014 **Fast Ghost Imaging**, *C++*, *Matlab*, Research Project.

Working with Liheng Bian, Prof. Lei Zhang, Prof. Jinli Suo and Prof. Qionghai Dai.

Computational ghost imaging needs to acquire a large number of correlated measurements between reference patterns and the scene for reconstruction.

This project proposes a self-synchronization scheme that can eliminate this difficulty by introducing a high precision synchronization technique and corresponding algorithm. We physically implement the proposed scheme using a 20kHz spatial light modulator to generate random binary patterns together with a 100 times faster photodiode for high speed ghost imaging, and the acquisition frequency is around 14 times faster than that of state-of-the-arts.

I was the major contributor of this project and the paper has been submitted to Optics Letter (OL, IF 3.385).

# 发表论文

- Yudong Xiao, Jinli Suo, Liheng Bian, Lei Zhang, and Qionghai Dai, "Automatic Inpainting of Linearly Related Video Frames", IEEE International Conference on Image Processing, 2014.
- Jinli Suo, **Yudong Xiao**, Liheng Bian, Lei Zhang, and Qionghai Dai, "Self synchronizing scheme for high speed ghost imaging", submitted to Optics Letter (OL, IF 3.385).
- Yuqing Lu, Lei Zhang, Yudong Xiao, and Yangguang Li, "Simultaneously detecting fake reviews and review spammers using factor graph model", ACM Web Science 2013.

#### Skills

Languages C/C++=Matlab=Objective-C>JAVA=Python.

Major **Data Mining, Computer Vision**, Solid basic knowledge in data mining, machine learning and computer vision related.

English CET-6 551, skilled at reading & translation of domain materials..