Bin Wang

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EDUCATION

Shandong University **Jinan, China**
Ph.D Candidate (Joint Master-Doctor Program) in Computer Science 2012/9 – (Expected) 2018/6

- **GPA:** 91/100
- **Honors:** First-class Scholarship of Excellent Postgraduate in Shandong University (2014,2015,2016)
- **Relevant Coursework:** Computer Vision / Computer Graphics / Image Processing and Analysis / Machine Learning / Numerical Optimization

Shandong University **Jinan, China**
Bachelor of Engineering in Software Engineering 2008/9 – 2012/6

- **GPA:** 86/100
- **Honors:** Second-class Scholarship of Excellent Student in Shandong University (2010,2011)

PUBLICATION

- **Bin Wang**, Fan Zhong, Xueying Qin. Pose Optimization in Edge Distance Field for Textureless 3D Object Tracking. In Proceedings of CGI'17, 2017.
- Guofeng Wang, **Bin Wang**, Fan Zhong, Xueying Qin, Baoquan Chen. Global Optimal Searching for Textureless 3D Object Tracking. The Visual Computer, 31(6-8):979-988, 2015.
- **Wang Bin**, Chen Wenzheng, Zhong Fan, Tu Changhe, Qin Xueying, Peng Qunsheng. RGB-D Video Segmentation via Geodesic Spatio-Temporal Propagation. Journal of Computer-Aided Design & Computer Graphics, 27(10):1816-1822, 2015. (in Chinese)

RESEARH EXPERIENCE

***EDF 3D Tracker**, the first author* 2016/9 – 2017/6

- A monocular model-based 3D tracking method for textureless objects
- A novel energy function defined in edge distance field for 6DoF pose estimation
- Robust to partial occlusions, fast motions and cluttered backgrounds

***Deep Fit**, the first author* 2015/6 – 2016/5

- A 3D object detection and 6DoF pose estimation method just using synthesized training images
- Extend Faster R-CNN from 2D detection to 3D detection, and a novel multi-task energy function
- Ongoing project

***GOS 3D Tracker**, the second author* 2014/9 – 2015/5

- A monocular model-based 3D tracking method for textureless objects
- A global optimal searching strategy for 3D-2D point correspondences used in minimization of the sum of reprojection errors
- Robust to cluttered backgrounds compared to the related local optimal searching method

***RGB-D Segmentation**, the first author* 2013/9 – 2014/6

- A real-time RGB-D video segmentation method via geodesic spatio-temporal propagation
- Robust in case of moving camera or overlap between depth ranges of foreground and background compared to traditional methods based on depth statistics

SKILLS, ACTIVITIES & INTERESTS

Languages: Chinese Mandarin (native); English (fluent)
Programming: Experienced in C/C++ and Python; Familiar with Java
Library & Tool: Experienced in OpenCV, OpenGL and Caffe; Familiar with Git
Teaching Assistant: Digital Image Processing (2013); Augmented Reality DIY (2015)
Volunteer: SIGGRAPH Asia (2013, 2014)
Interests: Running (accumulated about 600km from 2015); Photography (from 2015)

LABS & HOMEPAGE

Research Center of Human-Computer Interaction & Virtual Reality 2012 – 2013, 2016 – present

- http://vr.sdu.edu.cn

Interdisciplinary Research Center 2014 – 2015

- http://irc.cs.sdu.edu.cn

Personal Homepage 2015 – present

- https://imbinwang.github.io

王　斌

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教育背景

山东大学 **济南，中国**
工学博士（硕博连读） 计算机科学与技术 2012/9 -（预计）2018/6

- **GPA:** 91/100
- **相关课程:** 计算机视觉 / 计算机图形学 / 图像处理与分析 / 机器学习 / 优化理论与方法

山东大学 **济南，中国**
工学学士 软件工程 2008/9 - 2012/6

- **GPA:** 86/100

学术论文

- **Bin Wang**, Fan Zhong, Xueying Qin. Pose Optimization in Edge Distance Field for Textureless 3D Object Tracking. In Proceedings of CGI'17, 2017.
- Guofeng Wang, **Bin Wang**, Fan Zhong, Xueying Qin, Baoquan Chen. Global Optimal Searching for Textureless 3D Object Tracking. The Visual Computer, 31(6-8):979-988, 2015.
- **Wang Bin**, Chen Wenzheng, Zhong Fan, Tu Changhe, Qin Xueying, Peng Qunsheng. RGB-D Video Segmentation via Geodesic Spatio-Temporal Propagation. Journal of Computer-Aided Design & Computer Graphics, 27(10):1816-1822, 2015. (in Chinese)

研究经历

EDF 3D Tracker，第一作者 2016/9 - 2017/6

- 一种单目的基于模型的三维无纹理物体跟踪方法
- 新颖的定义在边距离场中的能量函数用以求解 6 自由度姿态参数
- 对部分遮挡、快速运动和复杂背景具有鲁棒性

Deep Fit，第一作者 2015/6 - 2016/5

- 一种三维目标检测和 6 自由度姿态估计方法
- 扩展 Faster R-CNN 用以三维目标检测，定义一种新颖的多任务能量函数
- 进展中项目

GOS 3D Tracker，第二作者 2014/9 - 2015/5

- 一种单目的基于模型的三维无纹理物体跟踪方法
- 全局最优搜索策略构建 3D-2D 点对应用以最小化重投影误差和
- 对复杂背景具有鲁棒性对比局部最优搜索方法

RGB-D Segmentation，第一作者 2013/9 - 2014/6

- 一种实时 RGB-D 视频实时分割方法
- 帧间构建时空测地线传播图，使用泛化测地线距离变换将前一帧的分割结果传播到当前帧
- 对相机运动或前背景深度交叠具有鲁棒性对比基于深度统计的传统视频分割方法

技能和爱好

语言：中文-母语；英语-流利
编程：熟练 C/C++和 Python；了解 Java
工具：熟练 OpenCV,OpenGL 和 Caffe；了解 Git
助教：数字图像处理（2013）；增强现实实践（2015）
志愿者：SIGGRAPH Asia 2013（香港）；SIGGRAPH Asia 2014（深圳）
爱好：长跑（自 2015 年累积跑量 600 公里）；摄影（自 2015 年）

实验室经历和个人主页

人机交互与虚拟现实研究中心 2012 - 2013, 2016 - 目前

- http://vr.sdu.edu.cn

交叉研究中心 2014 - 2015

- http://irc.cs.sdu.edu.cn

个人主页 2015 - 目前

- https://imbinwang.github.io