

DONGSHENG YANG

School of Computer and Information Technology, Zip Code :100044
Beijing Jiaotong University,
No.3 Shangyuancun, Haidian District, Email: DSYang@bjtu.edu.cn
Beijing, P.R.China

Education

M.Sc. of Signal and Information Processing

09/2014-Present

- Institute of Information Science, Beijing Jiaotong University, Beijing
- Significant Coursework: Image Processing, Pattern Recognition, Information Theory, Digital Signal Processing, Computer Vision, Artificial Neural Network, Human-Computer Interaction, Matrix Analysis
- Thesis Title: Image Fusion Based on NSST and Block Matching Algorithm
- General GPA: 3.43 Ranking: 6/34

Bachelor of Computer Science and Technology

09/2010-07/2014

- School of Computer and Information Technology, Beijing Jiaotong University, Beijing
- Significant Coursework: Operating Systems, Data Structures, Computer Networks, Computer Architecture, Database Systems, Object-Oriented Programming(C++) , Java, Discrete Mathematics
- Thesis Title: The Research on Blind Restoration Algorithm of Motion-blurred Image
- General GPA: 3.18 Ranking: 34/180

Current Research Area

Image Fusion, Image De-burring, Image Processing, Computer Vision

Experiences

Research Experiences:

M.Sc. Student,

Institute of Information Science, Beijing Jiaotong University

09/2014-Present

- Main research focus is image fusion.
- Research on transform domain image fusion methods and the design of self-adaptive fusion rules.
- Research on the combined fusion framework of spatial domain and transform domain fusion methods.

Assistant Researcher,

Institute of Information Science, Beijing Jiaotong University

09/2015-Present

- Main participant of my supervisor Prof. Hu's research project "Shearlet Domain Image Fusion Algorithm Based on Non-local Similarity and BM3D", supported by National Natural Science Foundation of China.
- Apply non-local similarity and collaborative filtering on shearlet domain fusion as well as propose a shearlet-domain fusion method base on "Block-matching and 3D filtering" (BM3D).
- Research on the realization of 3D block-matching and the algorithm design of grouping by similarity.

Principal Investigator,

Institute of Information Science, Beijing Jiaotong University

01/2016-Present

- Principal investigator of research project "Image Fusion Algorithm Based on 3D Transform and Block-Matching", supported by Graduate Science and Technology Innovation Fund, BJTU.
- Optimizing the effect of image fusion by using block-matching and 3D transform before multi-scale transform

to gain more spatial domain feature information assists transform domain fusion.

Project Experiences:

Developer, Multi Flash Points Recognition Software,

China Academy of Railway Sciences

04/2015-Present

- Capture sequential images using the SDK of Baster Industrial Camera and binarize them.
- Use expansion, corrosion and other image processing methods to improve and perfect the existing 8-neighborhood contour tracking algorithm.
- Complete the storage function of uncompressed dual high-definition and high-frame video by C # language.

Developer/Coordinator, Frequency Spectrum Planning Software,

Beijing Jiaotong University

06/2015-04/2016

- In consultation with users, understanding user needs and writing the needs analysis report.
- Involve in the programing work of the project, realized the I/O between the Xml and MySQL database in C#.

Part-time Intern,

SAP China & School of CIT, Beijing Jiaotong University

06/2013-07/2013

- As a part-time intern, learn to manage and use SAP HANA database and obtain SAP Global Certification.

Other Experiences:

- Linux User: Strong Linux command line skills: Building and configuring Linux server via the command line in the terminal. Establishing website and VPN server on CentOS space provide by DigitalOcean.com

Publication

Conference Papers:

- Yang, Dongsheng; Hu, Shaohai; Sun, Yuchao.(2015).Medical Image Fusion Based on Non-subsampled Shearlet Transform and NSGA-II. (In *The Seventh Chinese Information Fusion Conference (CIFC-2015)*, pp1272-1275.Oct.16-18, Qingdao, China)
- Yang, Dongsheng; Hu, Shaohai; Liu,Shuanqi; Ma,Xiaole.(2016). Block-Matching Based Multimodal Medical Image Fusion via PCNN with SML. (In *International Conference on Signal Processing (ICSP-2016)*, .Nov.7-10, Chengdu, China)

Degree Thesis:

- Yang Dongsheng.(2014).The Research on Blind Restoration Algorithm of Motion-blurred Image : (Bachelor's thesis, Beijing Jiaotong University)

Awards & Honors

- First-level Academic Scholarship, Beijing Jiaotong University, 2015-2016
- Best Paper Award, The Seventh Chinese Information Fusion Conference,10/2015
- Second-level Academic Scholarship, Beijing Jiaotong University, 2014-2015
- First-level Academic Scholarship, Beijing Jiaotong University, 2013-2014
- Third-level Learning Merit Scholarship, Beijing Jiaotong University, 2012-2013

Certification

- GRE General Test Total Score 312 (Verbal 146, Quantitative 166, Analytical Writing 3.0) 10/2016
- IELTS Overall Band Score 7.0 (Listening 7.0, Reading 8.5, Writing 6.0, Speaking 5.5), 11/2016
- SAP Global Certification SAP Certified Application Associate – SAP HANA 1.0, 09/2013

References available on request