DONGSHENG   YANG

School of Computer and Information Technology,   Zip Code :100044
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Education

Master of Signal and Information Processing   09/2014-Present

- Institute of Information Science, School of Computer and Information Technology, Beijing Jiaotong University, Beijing
- Significant Coursework: Digital 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 Interests

Image Fusion, Image Denoising, Image Deblurring, Computer Vision, Image Processing.

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.

Research Assistant,
Institute of Information Science, Beijing Jiaotong University   09/2015-Present

- Main participant of my supervisor's research project "Shearlet Domain Image Fusion Algorithm Based on Non-Local Similarity and BM3D", supported by National Natural Science Foundation of China.
- Research on the realization of Shearlet domain fusion method base on "Block-matching and 3D filtering" (BM3D) as well as apply non-local similarity and collaborative filtering on Shearlet domain image fusion.

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, Beijing Jiaotong University.
- Optimized 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 & Beijing Jiaotong University   **04/2015-Present**

- Captured sequential images using the SDK of Baster Industrial Camera.
- Used expansion, corrosion and other image processing methods to improve and perfect the existing 8-neighborhood contour tracking algorithm.
- Completed 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, understood user needs and wrote the needs analysis report.
- Involved in the programming work, realized the I/O between the XML and MySQL database in C#.

Part-time Intern,

SAP China & Beijing Jiaotong University   **06/2013-07/2013**

- Learned to manage and use SAP HANA database and obtained SAP Global Certification.

Other Experience:

- 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

Publications

Conference Papers:

- Hu, Shaohai; Yang, Dongsheng; Liu,Shuanqi; Ma,Xiaole.(2016). Block-Matching Based Multimodal Medical Image Fusion via PCNN with SML. (In *13th IEEE International Conference on Signal Processing (ICSP-2016)*, pp13-18. Nov.7-10, Chengdu, China)
- Hu, Shaohai; Ma,Xiaole; Liu,Shuanqi; Yang, Dongsheng.(2016). SAR Image Denoising Based on Non-Local Similar Block Matching in NSST Domain. (In *13th IEEE International Conference on Signal Processing (ICSP-2016)*, pp 833-836. Nov.7-10, Chengdu, China)
- 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) (Written in Chinese with English abstract)

Degree Thesis:

- Yang Dongsheng. (2014). The Research on Blind Restoration Algorithm of Motion-blurred Image: (Bachelor degree'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

Tests & Certifications

- 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