

Benchmark for Breast Ultrasound Image Segmentation (BUSIS): Release Agreement

Introduction:

Many breast ultrasound (BUS) image segmentation approaches have been proposed in the last two decades, but the performances of most approaches have been assessed using relatively small private datasets with different quantitative metrics, which result in the discrepancy in performance comparison. Therefore, the goal of the Benchmark for Breast Ultrasound Image Segmentation (BUSIS) is to provide a benchmark to compare existing methods using a public dataset objectively, and to determine the performance of the best breast tumor segmentation algorithm. BUSIS provides 562 B-mode BUS images and pixel-wise ground truths. Dr. Yingtao Zhang from Harbin Institute of Technology has the copyright on the database. We will provide the link of the database after signing this release agreement.

Release of the database:

Dr. Yingtao Zhang from Harbin Institute of Technology is the major contact person to release this database. To receive access to the dataset, for non-commercial research and other branches of related research, you must sign this document agreeing to the conditions and restrictions listed below:

Consent:

I/We agree to the following conditions and restrictions of access and use of BUSIS:

1. **Redistribution:** Without prior written approval from Dr. Zhang, BUSIS will not be further distributed, published, copied, or disseminated in any way or form whatsoever, in whole or in part, whether for profit or not. This includes further distributing, copying or disseminating to a different facility, department or organizational unit within this university, organization, or company.
2. **Modification and Commercial Use:** Without prior written approval from Dr. Zhang, BUSIS, in whole or in part, may not be modified or used for commercial purposes.
3. **Publication Requirements:** Where permitted to publish by agreement of Dr. Zhang, publication will be restricted to paper, web-based data and image data, for scientific purposes only, in summary forms.
4. **Citation/Reference:** All documents and papers that report on research that uses BUSIS will acknowledge the use of the dataset by including an appropriate citation to the following:
 - M. Xian, Y. Zhang, and H. D. Cheng, "Fully automatic segmentation of breast ultrasound images based on breast characteristics in space and frequency domains," *Pattern Recognit.*, vol. 48, no. 2, pp. 485-497, 2015.
 - H. D. Cheng, J. Shan, W. Ju, Y. Guo, and L. Zhang, "Automated breast cancer detection and classification using ultrasound images: A survey," *Pattern Recognit.*, vol. 43, no. 1, pp. 299-317, Jan, 2010.
 - Y. Zhang, M. Xian, H. D. Cheng, B. Shareef, J. Ding, F. Xu, K. Huang, B. Zhang, C. Ning, Y. Wang, "BUSIS: A Benchmark for Breast Ultrasound Image Segmentation," *Healthcare.*, vol. 10, no. 4, pp. 729, Apr, 2022.
 - M. Xian, Y. Zhang, H. D. Cheng, F. Xu, B. Zhang, and J. Ding, "Automatic Breast Ultrasound Image Segmentation: A Survey," *Pattern Recognit.*, vol. 79, pp. 340-355, 2018.
5. **Publication:** A copy of all reports and papers that are for public or general release that use BUSIS should be forwarded immediately upon release or publication to Dr. Zhang.

6. **No Warranty:** THE PROVIDER OF THE DATA MAKES NO REPRESENTATIONS AND EXTENDS NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED. THERE ARE NO EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR THAT THE USE OF THE MATERIAL WILL NOT INFRINGE ANY PATENT, COPYRIGHT, TRADE-MARK, OR OTHER PROPRIETARY RIGHTS.

Please sign below and email a scanned copy to Dr. Zhang at yingtao@hit.edu.cn

Name (Print):

Signature:

Date:

Email:

Organization:

Address:

Position: