



DAFTAR PUSTAKA

- [1] S. J. Park, “An Analysis of GPU Parallel Computing,” 2009, pp. 365–369.
- [2] L. Pan, L. Gu, and J. Xu, “Implementation of medical image segmentation in CUDA,” in *Information Technology and Applications in Biomedicine, 2008. ITAB 2008. International Conference on*, 2008, pp. 82–85.
- [3] X. Wang, X. Li, M. Zou, and J. Zhou, “AES finalists implementation for GPU and multi-core CPU based on OpenCL,” in Anti-Counterfeiting, Security and Identification (ASID), 2011 IEEE International Conference on, 2011, pp. 38–42.
- [4] M. Di Pierro, “Portable Parallel Programs with Python and OpenCL,” *Comput. Sci. Eng.*, vol. 16, no. 1, pp. 34–40, Jan. 2014.
- [5] A. Brunton and J. Zhao, “Real-time video watermarking on programmable graphics hardware,” in Canadian Conference on Electrical and Computer Engineering, 2005, vol. 2005, pp. 1312–1315.
- [6] “Introduction to Parallel Computing.” [Online]. Available: https://computing.llnl.gov/tutorials/parallel_comp/#Whatis. [Accessed: 21-May-2017].
- [7] J. Sanders and E. Kandrot, CUDA by example: an introduction to general-purpose GPU programming. Upper Saddle River, NJ: Addison-Wesley, 2011.
- [8] R. Duncan, “A survey of parallel computer architectures,” *Computer*, vol. 23, no. 2, pp. 5–16, 1990.
- [9] M. J. Flynn, “Very High-Speed Computing System,” 1966.
- [10] “NVIDIA on GPU Computing and the Difference Between GPUs and CPUs.” [Online]. Available: <http://www.nvidia.com/object/what-is-gpu-computing.html>.
- [11] “CUDA C Programming Guide.” [Online]. Available: <http://docs.nvidia.com/cuda/cuda-c-programming-guide/index.html>.
- [12] J. Ghorpade, “GPGPU Processing in CUDA Architecture,” *Adv. Comput. Int. J.*, vol. 3, no. 1, pp. 105–120, Jan. 2012.
- [13] A. Klrockner, “Easy, Effective, Efficient: GPU Programming in Python with PyOpenCL and PyCUDA.” 2011.
- [14] “The Khronos Group,” The Khronos Group, 21-Aug-2017. [Online]. Available: <https://www.khronos.org>.



ANALISIS PERFORMA KOMPUTASI PARALEL GPU PADA CITRA DIGITAL TERKOMPRESI MENGGUNAKAN PYCUDA DAN PYOPENCL

UNIVERSITAS
GADJAH MADA **MUHAMMAD KOPRAWI**, Teguh Bharata Adjii, S.T., M.T., M. Eng., Ph.D.;**Dani Adhipta**, S.Si., M.T.
Universitas Gadjah Mada, 2017 | Diunduh dari <http://etd.repository.ugm.ac.id/>

- [15] [15] J. Hensley, "What is OpenCLTM?," in ACM SIGGRAPH ASIA 2010 Courses, 2010, p. 9.
- [16] [16] "Python," welcome to Python.org, 21-Aug-2017. [Online]. Available: <https://www.python.org/>.
- [17] [17] A. Klöckner, "PyCUDA: Even Simpler GPU Programming with Python," in GPU Technology Conf. Proceedings, Sep. 2010, 2010.
- [18] [18] "PyCUDA." [Online]. Available: <https://mathematician.de/software/pycuda/>. [Accessed: 21-May-2017].
- [19] [19] A. Klöckner, N. Pinto, Y. Lee, B. Catanzaro, P. Ivanov, and A. Fasih, "PyCUDA and PyOpenCL: A scripting-based approach to GPU run-time code generation," *Parallel Comput.*, vol. 38, no. 3, pp. 157–174, 2012.
- [20] [20] T. Sutoyo, S.Si., M.Kom., Edy Mulyanto, S.Si., M.Kom, Dr. Vincent Suhartono, Oky Dwi Nurhayati, M.T., and Wijanarto, M.Kom., *Teori Pengolahan Citra Digital*. Semarang: ANDI, 2009.
- [21] [21] A. Kadir and Adhi Susanto, *Teori dan Aplikasi Pengolahan Citra*. Yogyakarta: ANDI, 2013.
- [22] [22] B. Wilkinson and Michael Allen, *Parallel Programming Techniques and Application Using Networked Workstation and Parallel Computers*, Second. 2005.
- [23] [23] Z. Johasz, "An analytical method for predicting the performance of parallel image processing operations," *J. Supercomput.*, vol. 12, no. 1, pp. 157–174, 1998.
- [24] [24] I. Scholl, T. Aach, T. M. Deserno, and T. Kuhlen, "Challenges of medical image processing," *Comput. Sci. - Res. Dev.*, vol. 26, no. 1–2, pp. 5–13, Feb. 2011.
- [25] [25] F. Wu, C. Chen, and H. Narang, "An Efficient Acceleration of Symmetric Key Cryptography Using General Purpose Graphics Processing Unit," in *Emerging Security Information Systems and Technologies (SECURWARE)*, 2010 Fourth International Conference on, 2010, pp. 228–233.
- [26] [26] S. Neves and F. Araujo, "On the performance of GPU public-key cryptography," in *Application-Specific Systems, Architectures and Processors (ASAP)*, 2011 IEEE International Conference on, 2011, pp. 133–140.
- [27] [27] X. Chen, Y. Qiu, and H. Yi, "Implementation and performance of image filtering on gpu," in *Intelligent Control and Information Processing (ICICIP)*, 2013 Fourth International Conference on, 2013, pp. 514–517.
- [28] [28] P. Memarzia and F. Khunjush, "Exploring gpu memory performance using digital image processing algorithms," *Indian J. Comput. Sci. Eng. IJSCE*, vol. 5, no. 6, 2014.



**ANALISIS PERFORMA KOMPUTASI PARALEL GPU PADA CITRA DIGITAL TERKOMPRESI
MENGGUNAKAN PYCUDA DAN
PYOPENCL**

UNIVERSITAS
GADJAH MADA Universitas Gadjah Mada, 2017 | Diunduh dari <http://etd.repository.ugm.ac.id/>

- [29] MUHAMMAD KOPRAWI, Teguh Bharata Adjii, S.T., M.T., M. Eng., Ph.D.; Dani Adhipta, S.Si., M.T. Z. A. Ahmad, M. Elshaikh, C. M. Nor, M. S. Mustafa, M. A. Romli, and M. F. Jamlos, “Low Cost Parallel Processing System for Image Processing Applications,” *Procedia Eng.*, vol. 41, pp. 771–776, 2012.
- [30] D. Connors, “Exploring Computer Vision and Image Processing Algorithms in Teaching Parallel Programming,” *Dep. Electr. Eng. Univ. Colo. Denver*, 2013.
- [31] W. Yan, X. Shi, X. Yan, and L. Wang, “Computing OpenSURF on OpenCL and General Purpose GPU,” *Int. J. Adv. Robot. Syst.*, vol. 10, no. 10, p. 375, Oct. 2013.
- [32] R. Salvo and C. Pino, “Image and video processing on GPU: implementation scheme, applications and future directions,” *Adv. Mech. Electron. Eng.*, pp. 375–382, 2013.
- [33] S. Sosutha and D. Mohana, “Heterogeneous Parallel Computing Using Cuda for Chemical Process,” *Procedia Comput. Sci.*, vol. 47, pp. 237–246, 2015.
- [34] P. Kavitha, “A Survey on Lossless and Lossy Data Compression Methods,” *Int. J. Comput. Sci. Eng. Technol. IJCSET*, vol. 7, no. 03, 2016.
- [35] S. Sahni and V. Thavantri, *Parallel Computing: Performance Metrics and Models*. 2002.
- [36] “Predicting and Measuring Parallel Performance | Intel® Software.” [Online]. Available: <https://software.intel.com/en-us/articles/predicting-and-measuring-parallel-performance>. [Accessed: 22-May-2017].