

Liang-Bo Wang

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EDUCATION

Washington University in St. Louis, United States
Ph.D. student in Computational and Systems Biology Aug 2016 – (present)

National Taiwan University, Taipei, Taiwan
M.S. in Biomedical Electronics and Bioinformatics Jan 2014 – Jul 2016
B.S. in Electrical Engineering Sep 2009 – Jan 2014
Minor in Economics

AWARDS & SCHOLARSHIPS

McDonnell International Scholars Academy 2016 – Present
Washington University in St. Louis

Outstanding Summer Research Award 2012
Center of Genomic Medicine, National Taiwan University

RESEARCH EXPERIENCE

Microsoft Research Asia, Beijing, China Jul 2014 – Feb 2015
Internship

- Advisor: Dr. Eric Chang
- Topic: Cancer Image and Pathway Analysis
- Applied convolutional neural network to histopathology image analysis

Biomedical Engineering and Bioinformatics, National Taiwan University
Graduate Research Jan 2014 – Jun 2016

- Advisor: Professor Eric Y. Chuang
- Topic: Integrative analysis of copy number variation, gene expression, and miRNA regulation on cancer; drug treatment prediction on lung cancer cell line

Undergraduate Research Sep 2012 – Jan 2014

- Advisor: Professor Eric Y. Chuang
- Topic: DNA-seq, RNA-seq and small RNA-seq data processing
- Project: Nextbiopy, a web-based NGS pipeline report generator

Undergraduate Research Sep 2011 – Nov 2012

- Advisor: Associate Professor Wei-Cheng Tian
- Project: CMOS-based tactile sensor system for blood pressure measurement

WORK EXPERIENCE

Pinkoi, Taipei, Taiwan Jun 2015 – Sep 2015
Internship

- Pinkoi is an online marketplace for unique and original design goods in Asia
- Topic: Product search improvement
- Improved Chinese text segmentation on ElasticSearch and added preliminary semantic search built on Word2Vec

PUBLICATIONS

JOURNALS

- [1] GF Gao*, JS Parker*, SM Reynolds*, TC Silva*, **LB Wang***, W Zhou*, *et al.* “Before and After: Comparison of Legacy and Harmonized TCGA Genomic Data Commons’ Data.” *Cell systems* 9 (1), 24-34. e10. Jul 2019
- [2] SQ Sun, RJ Mashl, S Sengupta, AD Scott, W Wang, P Batra, **LB Wang**, M A Wyczalkowski, L Ding. “Database of evidence for precision oncology portal.” *Bioinformatics* 34 (24), 4315-4317. Jul 2018.
- [3] KL Huang, *et al.* “Pathogenic germline variants in 10,389 adult cancers.” *Cell*, 173 (2), 355-370. e14. Apr 2018.
- [4] Y Xu, Z Jia, **LB Wang**, Y Ai, F Zhang, M Lai, I Eric, C Chang. “Large scale tissue histopathology image classification, segmentation, and visualization via deep convolutional activation features.” *BMC bioinformatics*, 18 (1), 281. Dec 2017.
- [5] YP La*, **LB Wang***, WA Wang*, LC Lai, MH Tsai, TP Lu, E Y Chuang. “iGC—an Integrated Analysis Package of Gene Expression and Copy Number Alteration.” *BMC Bioinformatics*, 18 (1), 35. Jan 2017.
- [6] **LB Wang**, E Y Chuang, TP Lu. “Identification of predictive biomarkers for ZD-6474 in lung cancer.” *Translational Cancer Research*, 4 (4), 324-331. Aug 2015.
- [7] CY Lee*, YC Chiu*, **LB Wang***, YL Kuo*, EY Chuang, LC Lai, MH Tsai. “Common applications of next-generation sequencing technologies in genomic research.” *Translational Cancer Research*, 2 (1), 33-45. Feb 2013.

CONFERENCE PAPERS

- [1] **LB Wang**, SY Dai, TP Lu, LC Lai, MH Tsai, E Y Chuang. “Nextbiopy: Utilities for next-generation sequencing data processing”, *9th Asian Pacific Conference on Medical and Biological Engineering (APCMBE)*, Tainan, Taiwan, Oct 2014.
- [2] CY Lee*, **LB Wang***, MH Tsai, LC Lai, E Y Chuang. “Identification of novel miRNAs in breast data of the next generation sequencing using miRDeep2 and Galaxy”, *AACR 104th Annual Meeting*, Washington, DC, U.S.A., Apr 2013.
- [3] YC Lin, CJ Hsieh, **LB Wang** (presenter), JC Liou, WC Tian. “CMOS MEMS metal-based tactile sensors development”, *AVS 59th International Symposium & Exhibition*, Florida, U.S.A., Oct 2012.
- [4] CT Sun, YC Lin, CJ Hsieh, JC Liou, **LB Wang**, WC Tian. “A linear-response CMOS-MEMS capacitive tactile sensor”, *IEEE Sensors 2012*, Taipei, Taiwan, Oct 2012.

PROGRAMMING SKILLS

LANGUAGES

Python (both scientific and web stack), R, L^AT_EX, Web frontend, SQL, C

**COMMUNITY
ENGAGEMENT**

PyCon Taiwan Organizing Committee, Taipei, Taiwan
Program Chair

Jul 2015 – Jul 2016

PyCon APAC Organizing Committee, Taipei, Taiwan
Public Relations Manager

2014, 2015

Open Source Communities, Taipei, Taiwan
Regular Speaker

2013 – 2016

- Including Taiwan PyCon, Taipei.py, Taiwan R User Group, and PyCon China
- Gave over 10 talks, topics included convolutional neural network, text search, HDF5, Parallel Computing, and R ggplot2 plotting.

[Last updated: 2019-09-24]