# Curriculum Vitae

# Liang-Bo Wang

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# Professional Profile

- 1. Ability to manipulate bioinformatic tools and analyze next generation sequencing data
- 2. Technical skills to carry out web and distributed computation development

# ACADEMIC HONORS AND AWARDS

- 1. Outstanding Research Award, NTU Center of Genomic Medicine Summer Research, 2012
- 2. **Gold medal** and advance to World Championship Jamboree, NTU-Taida Team, iGEM (International Genetically Engineered Machine), 2012

# EDUCATION

- 1. Master of Science in Graduate Institute of Biomedical Electronics and Bioinformatics, National Taiwan University, Jun 2015 (expected)
- Bachelor of Engineering, Electrical Engineering and Economics (minor), National Taiwan University, Jan 2014

#### EXPERIENCE

- 1. Internship: Microsoft Research Asia, Jul 2014 Jan 2015 (expected)
- 2. Python Pacage Development: NGCloud, Mar 2014 present
  - NGS User-friendly web-based report generator
- 3. Python Package Development: NextBiopy, Sep 2013 present
  - Data parser for common NGS file formats
- 4. **Project Research:** Bioinformatics and Biostatistics Core Lab, NTU Center of Genomic Medicine, National Taiwan University, Taipei, Taiwan, Sep 2012 present
  - Topic: DNA-seq, RNA-seq and sRNA-seq data processing
- 5. R Package Development: recurrentR, May 2013 –Sep 2013
  - Implementation of a recurrent model with informative censoring (C.-Y. Huang, 2010)
- 6. **Team Project:** NTU-Taida Team, iGEM 2012, Jan 2012 Nov 2012
  - Topic: A demonstration of PepdEx with a mind-altering bacteria delivering GLP-1
  - Role: Biological circuit (gene network) simulation; iGEM wiki page construction
- Project Research: Micro & Nano Analytical Technologies & Systems Lab, Graduate Institute of Electronics Engineering & Graduate Institute of Biomedical Electronics and Bioinformatics, National Taiwan University, Taipei, Taiwan, Sep 2011 – Nov 2012
  - CMOS-based tactile sensor system for blood pressure measurement

# **SKILLS**

- 1. Programming Languages: Python, R, JavaScript(CoffeeScript), Stylus, C, SQL
- 2. Familar Tools/Projects: Numpy, Pandas, RPy2, Matplotlib, IPython, ggplot2, D3.js
- 3. Operating System: Debian Linux, Mac OSX

### **PUBLICATION**

- 1. C.-Y. Lee<sup>†</sup>, **L.-B. Wang**<sup>†</sup>, M.-H. Tsai, L.-C. Lai, E. Y. Chuang, Identification of novel miRNAs in breast data of the next generation sequencing using miRDeep2 and Galaxy, *AACR 2013*, Apr 2013
- 2. C.-Y. Lee<sup>†</sup>, Y.-C. Chiu<sup>†</sup>, **L.-B. Wang**<sup>†</sup>, Y.-L. Kuo<sup>†</sup>, E. Y. Chang\*, L.-C. Lai\*, M.-H. Tsai\*, Common applications of next-generation sequencing technologies in genomic research, *Transl Cancer Res*, Feb 2013 (review paper)
- 3. Y.-C. Lin, C.-J. Hsieh, L.-B. Wang, J.-C. Liou, W.-C. Tian\*, CMOS MEMS metal-based tactile sensors development, AVS 59th International Symposium & Exhibition, Oct 2012
- 4. <u>C.-T. Sun</u>, Y.-C. Lin, C.-J. Hsieh, J.-C. Liou, **L.-B. Wang**, W.-C. Tian\*, A linear-response CMOS-MEMS capacitive tactile sensor, *IEEE Sensors 2012*, 2082-2085, Oct 2012

# Extracurricular Activities

- 1. Co-organizer of Taiwan R User Group, Mar 2013 present
  - Co-organizer and speaker of Machine Learning/Data Mining Monday weekly meet ups
  - Speaker of R workshop on statistics and Visualizationin at serveral colleges
- 2. **Speaker** of Taipei.py biweekly meet ups, Jan 2013 present
  - Host of code sprint, a Python project contribution event, on Nextbiopy
- 3. Speaker of China R Conference, Beijing, May 2014
  - Talk topic: Interactive Visualization with R
- 4. **Speaker** and **staff** of PyCon APAC, May 2014
  - Role: oversea public relation; leader of Japanese/English/Chinese web editing
  - Talk topic: Handy Parallelization in Python; Statistics in Python with R
- 5. Speaker of Taiwan R Conference, Dec 2013
  - Talk topic: R Visualization using ggplot2
- 6. NTU Photo Club, 2009 2013
  - Staff (Mar 2010) and Leader (Sep 2010) of education division, **president** (Mar 2011) and web manager (Sep 2011)
- 7. NTUEE Summer Camp for High School, 2011, 2012
  - Staff (2011) and leader (2012) of photography division
  - Daily news and newspaper production in camp days

#### Conference Attendance

<sup>†</sup> implies equal contribution to the work; name of the presenter is underlined

- China R Conference, Beijing, May 2014
- PyCon APAC, Taipei, May 2014
- Taiwan R Conference, Taipei, Dec 2013
- PyCon APAC, Tokyo, Sep 2013
- COSCUP, Taipei, Aug 2013

- PyCon Taiwan, Taipei, May 2013
- American Association for Cancer Research (AACR), Washington D.C., Apr 2013
- WebConf Taiwan, Taipei, Feb 2013
- AVS 59th International Symposium & Exhibition, Tampa, Florida, Oct 2012