

## Guangyu Shan

---

Last updated: June 2018  
me@shanguangyu.com  
<https://shanguangyu.com>

<b>RESEARCH INTERESTS</b>	I am interested in bioinformatics algorithm development. Previously, I also worked on text mining and IVD product development.	
<b>EDUCATION</b>	<i>Master of Science, Bioinformatics</i> 2013 - 2016 <b>Academy of Military Medical Sciences</b> , Beijing, China GPA: 79.0/100 Dissertation: Data Mining and Feature Selection of High Dimensional Biomedical Data Based on TCGA and PubMed Databases Advisor: <a href="#">Prof. Chenggang Zhang</a>	
	<i>Bachelor of Engineering, Bioengineering</i> 2009 - 2013 <b>Wuhan Institute of Bioengineering</b> , Wuhan, China GPA: 88.9/100 Dissertation: Preparation of Chitosan Degradation Enzymes from <i>Aspergillus oryzae</i> by Solid-state Fermentation	
<b>EXPERIENCE</b>	<i>R&amp;D Manager</i> Jul 2016 - Present R&D Department, Novogene Corporation, Beijing, China <ul style="list-style-type: none"><li>• Two promotions in two years.</li><li>• Responsible for the development, deployment, and maintenance of bioinformatics pipelines, focusing on improving robustness and accuracy, such as MSI, TMB, BRCA1/2 variants auto-interpretation pipelines, etc.</li><li>• Manage project workflow of sample processing and data transfer, in collaboration with project managers and data engineers.</li><li>• Work with interdisciplinary team to prototype and implement functional and design specifications for IVDs.</li></ul>	
<b>COMPUTER SKILLS</b>	<i>Basic:</i> Python = R > Shell > Scala, Linux/Mac OS X = Vim = Docker > LaTeX > Git, MySQL > MongoDB	
	<i>Advanced:</i> Cancer Genomics, Machine Learning, Text Mining, NGS algorithm development	
<b>HONORS &amp; AWARDS</b>	<i>Distinguished Alumni Award</i> 2017 Wuhan Bioengineering Institute, Wuhan, China	
	<i>Outstanding Student</i> 2014 Institute of Radiation Medicine, AMMS, Beijing, China	
	<i>Rank 7th in Men's 1500-metre Race in the Sports Meeting</i> 2011 Wuhan Bioengineering Institute, Wuhan, China	
	<i>National Encouragement Scholarship</i> 2010 Ministry of Education, Wuhan, China	

**PUBLICATIONS**  
(Peer reviewed,  
\* co-first author)

1. **Guangyu Shan**, Lin Zhao, Lei Li, et al. [Comparison of Tumor Mutational Burden \(TMB\) derived from whole exome and large panel sequencing in lung cancer](#) [C]. 2017, IASLC 18th World Conference on Lung Cancer (IASLC WCLC 2017), Yokohama, Japan.
2. **Guangyu Shan**, Lin Zhao, Lei Li, et al. A target sequencing-based method for detecting microsatellite instability [C]. 2017, Chinese Society of Clinical Oncology (CSCO), Xiamen, China.
3. **Guangyu Shan**, Yiming Lu, Wubin Qu, et al. [A customized literature service based on WeChat public platform](#) [J]. Chinese Journal of Bioinformatics, 2015, 13(2): 120-124. [In chinese]
4. **Guangyu Shan**, Yiming Lu, Wubin Qu, et al. [Topological characteristics of postoperative survival rate-related molecules in hepatocellular carcinoma-associated complex networks](#) [J]. Military Medical Sciences, 2015, 39(9): 691-693. [In chinese]
5. **Guangyu Shan** \*, Yiming Lu, Bo Min, et al. [A MeSH-based text mining method for identifying novel prebiotics](#) [J]. Medicine, 2016, 95(49): e5585.
6. Yiming Lu, **Guangyu Shan** \*, Jiguo Xue, et al. [Defining the multivalent functions of CTCF from chromatin state and three-dimensional chromatin interactions](#) [J]. Nucleic Acids Research, 2016, 44(13): 6200-6212.
7. Yiming Lu, Wubin Qu, **Guangyu Shan**, et al. [DELTA: A distal enhancer locating tool based on AdaBoost algorithm and shape features of chromatin modifications](#) [J]. PloS one, 2015, 10(6): e0130622.

**PATENT**

1. **Guangyu Shan**, Xia Ran, Yan Wang, et al. [A NGS-based software for detecting MSI in colorectal cancer](#). ID: CN107058551A; Date: 20170818.

**SOFTWARE  
COPYRIGHT**

1. **Guangyu Shan**, et al. [A NGS-based software for detecting MSI in colorectal cancer \[NovoMSI\] V1.0](#). Beijing Novogene Technology Co. Ltd. Registration ID: 2017SR206733; Registration Date: 20170525.
2. **Guangyu Shan**, et al. [A customized literature service system based on WeChat public platform \[PCRMaster\] V1.0](#). Institute of Radiation Medicine. Registration ID: 2016SR177461; Registration Date: 20160712.