Guangyu Shan

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RESEARCH INTERESTS

I am interested in bioinformatics algorithm development. Previously, I also worked on text mining and IVD product development.

EDUCATION

Master of Science, Bioinformatics

2013 - 2016

Academy of Military Medical Sciences, Beijing, China

GPA: 79.0/100

Dissertation: Data Mining and Feature Selection of High Dimensional Biomedical

Data Based on TCGA and PubMed Databases

Advisor: Prof. Chenggang Zhang

Bachelor of Engineering, Bioengineering

2009 - 2013

Wuhan Institute of Bioengineering, Wuhan, China

GPA: 88.9/100

Dissertation: Prepartion of Chitosan Degradation Enzymes from Aspergillus oryzae by Solid-state Fermentation

EXPERIENCE

R&D Supervisor

Jul 2016 - Present

R&D Department, Novogene Corporation, Beijing, China

- 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.
- Manage project workflow of sample processing and data transfer, in collaboration with project managers and data engineers.
- Work with interdisciplinary team to prototype and implement functional and design specifications for IVDs.

COMPUTER SKILLS

Basic: Python = R > Shell > Scala, Linux/Mac OS X = Vim = Docker > LaTeX > Git, MySQL > MongoDB

Advanced: Cancer Genomics, Machine Learning, Text Mining, NGS algorithm development

HONORS & AWARDS

Distinguished Alumni Award Wuhan Bioengineering Institute, Wuhan, China 2017

Wallan Dioengineering Institute, Wallan, China

Outstanding Student

2014

Institute of Radiation Medicine, AMMS, Beijing, China

Rank 7th in Men's 1500-metre Race in the Sports Meeting

2011

Wuhan Bioengineering Institute, Wuhan, China

National Encouragement Scholarship Ministry of Education, Wuhan, China 2010

(Peer reviewed,

* co-first author)

- PUBLICATIONS 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. Guangvu 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.