HYUN-HWAN JEONG

## Postdoctoral Associate

[I am a postdoctoral associate in the Department of Molecular and Human Ge‐](https://www.bcm.edu/departments/molecular-and-human-genetics) [netics at the Baylor College of Medicine and Jan and Dan Duncan Neurological Research Institute. I have received my Ph.D. degree in computer science from](https://nri.texaschildrens.org/) [Ajou University](https://www.ajou.ac.kr/en/) in August 2015 and started the postdoctoral position in the lab of [Dr. Zhandong Liu](http://www.liuzlab.org/), and co-mentored by [Dr. Huda Zoghbi](https://en.wikipedia.org/wiki/Huda_Zoghbi), since September 2015.

During my Ph.D. studies, I was highly focused on the development of integrative network analysis framework for multiple omics data using information-theoretic measure . I am now focusing on developing a quantiﬁcation algorithm and com‐ putational pipeline construction for NGS data for the neurological disorder.

I am also a developer of [SalmonTE](https://github.com/LiuzLab/SalmonTE) and [CB2](https://github.com/LiuzLab/CB2).

2009

| 2015

2007

| 2009

2003

| 2007

2015

| Present

#  EDUCATION

## Ajou University



Ph.D. in Computer Science and Engineering  Suwon, South Korea Thesis: Integrative network analysis framework for multiple omics data us‐ ing information-theoretic measure

## Ajou University

### M.Eng. in Information and Communication Technology

 Suwon, South Korea Thesis: Missing SNP genotype imputation by heuristic algorithm

## Ajou University

B.S. in Information and Computer Engineering  Suwon, South Korea

#  RESEARCH EXPERIENCE



## Postdoctoral Associate

### Department of molecular and human genetics, Baylor college of medicine

 Houston, Texas

* Mentor: Huda Zoghbi and Zhandong Liu

# CONTACT INFO

 [hyun-hwan.jeong@bcm.edu](mailto:hyun-hwan.jeong@bcm.edu)

 [github.com/hyunhwaj](https://github.com/hyunhwaj)

For more information, please con‐ tact me via email.

SKILLS

Experienced in algorithm design and statistical learning models.

Full experience with next genera‐ tion sequencing data analysis.

Highly skilled in R and Python.

2014

| 2015

**Research assistant**

### Health Avatar Project, National Core Research Center(NCRC)

 Suwon, South Korea

* Developed an multi-omics data intergration software (MINA) integrative omics data analysis using clinical outcome-guided mutual information network.

2014

| 2015

#  TEACHING EXPERIENCE

## C Programming



### Part time Instructor of C programming at Ajou University.

 Suwon, South Korea



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| --- | --- | --- |
|  |  | SELECTED PEER-REVIEWED PUBLICATIONS |
| 2019 |  | [**Are HHV-6A and HHV-7 Really More Abundant in Alzheimer’s Disease?**](http://dx.doi.org/10.1016/j.neuron.2019.11.009) |
|  |  | Neuron |
|  |  | **Hyun-Hwan Jeong**, Zhandong Liu |
| 2019 |  | [**Beta-binomial modeling of CRISPR pooled screen data iden‐ tiﬁes target genes with greater sensitivity and fewer false**](http://dx.doi.org/10.1101/gr.245571.118) |
|  |  | [**negatives**](http://dx.doi.org/10.1101/gr.245571.118) |
|  |  | Genome Research |
|  |  | **Hyun-Hwan Jeong**, Seon Young Kim, Maxime W.C. Rousseaux, Huda Y. |
|  |  | Zoghbi, Zhandong Liu |
| 2018 |  | [**Tau Activates Transposable Elements in Alzheimer’s**](http://dx.doi.org/10.1016/j.celrep.2018.05.004) |
|  |  | [**Disease**](http://dx.doi.org/10.1016/j.celrep.2018.05.004) |
|  |  | Cell Reports |
|  |  | Caiwei Guo, **Hyun-Hwan Jeong**, Yi-Chen Hsieh, Hans-Ulrich Klein, David |
|  |  | A. Bennett, Philip L. De Jager, Zhandong Liu, Joshua M. Shulman |
| 2018 |  | [**An ultra-fast and scalable quantiﬁcation pipeline for trans‐ posable elements from next generation sequencing data**](http://dx.doi.org/10.1142/9789813235533_0016) |
|  |  | Biocomputing 2018 |
|  |  | **Hyun-Hwan Jeong**, Hari Krishna Yalamanchili, Caiwei Guo, Joshua M. |
|  |  | Shulman, Zhandong Liu |
| 2017 |  | [**CRISPRcloud: a secure cloud-based pipeline for CRISPR pooled screen deconvolution**](http://dx.doi.org/10.1093/bioinformatics/btx335) |
|  |  | Bioinformatics |
|  |  | **Hyun-Hwan Jeong**, Seon Young Kim, Maxime W C Rousseaux, Huda Y |
|  |  | Zoghbi, Zhandong Liu |
| 2015 |  | [**Integrative network analysis for survival-associated gene- gene interactions across multiple genomic proﬁles in ovari‐**](http://dx.doi.org/10.1186/s13048-015-0171-1) |
|  |  | [**an cancer**](http://dx.doi.org/10.1186/s13048-015-0171-1) |
|  |  | Journal of Ovarian Research |
|  |  | **Hyun-hwan Jeong**, Sangseob Leem, Kyubum Wee, Kyung-Ah Sohn |

*Last updated on 2020-01-24.*