

# Jihui Lee

[github.com/jihuilee](https://github.com/jihuilee) [jihuilee.com](https://www.jihuilee.com) [in linkedin.com/in/jihuilee](https://www.linkedin.com/in/jihuilee)  
+1 917 929 1479 [✉ jil2043@med.cornell.edu](mailto:jil2043@med.cornell.edu)  
402 East 67th Street, New York, NY 10065

## Research Interests

---

- > Functional Data Analysis
- > Statistical Analysis of Complex Networks
- > Analysis of Mobile and Wearable Device Data
- > Digital Phenotyping
- > Deep Learning

## Education

---

|   |      |
|---|------|
| <b>Columbia University</b> , New York, NY<br>PhD in Biostatistics   | 2018 |
| <ul style="list-style-type: none"><li>&gt; Dissertation : Varying-Coefficient Models and Functional Data Analyses for Dynamic Networks and Wearable Device Data</li><li>&gt; Advisors : Dr. Jeff Goldsmith and Dr. Gen Li</li></ul> |      |
| <b>Seoul National University</b> , Seoul, Korea<br>MS in Statistics   | 2013 |
| <b>University of Seoul</b> , Seoul, Korea<br>BS in Statistics (Highest Honors); BA in Urban Administration  | 2011 |

## Academic Appointments

---

|                      |   |              |
|----------------------|---|--------------|
| 10/2018<br>- Present | <b>Postdoctoral Associate</b><br>Department of Healthcare Policy & Research, Weill Cornell Medicine<br>> Division of Biostatistics & Epidemiology | New York, NY |
|----------------------|---|--------------|

## Academic Honors

---

|           |  |
|-----------|--|
| 2018      | <b>Presidential Teaching Award for Graduate Student Instructors</b> , Columbia University, NY        |
| 2018      | <b>Travel Fellowship Award (NSF)</b> , Political Networks Workshops and Conference, Arlington, VA    |
| 2017-2018 | <b>Huo Family Foundation Scholarship</b> , Columbia University, New York, NY                         |
| 2017      | <b>Travel Fellowship Award (NSF)</b> , Political Networks Workshops and Conference, Columbus, OH     |
| 2017      | <b>Distinguished Student Paper Award</b> , Eastern North American Region (ENAR), Washington, DC      |
| 2016      | <b>First Runner-Up</b> , Columbia Data Science Institute Poster Social and Competition, New York, NY |
| 2013-2016 | <b>Biostatistics Fellowship</b> , Columbia University, New York, NY                                  |
| 2012      | <b>Brain Korea 21 Scholarship</b> , Seoul National University, Seoul, Korea                          |
| 2009      | <b>Seoul Mayor's Fellowship</b> , University of Seoul, Seoul, Korea                                  |
| 2007-2010 | <b>Academic Excellence Scholarship</b> , University of Seoul, Seoul, Korea                           |

## Research Experiences

---

- 06/2017 - 07/2018 | **International Center for AIDS Care and Treatment Program (ICAP)** | New York, NY  
Research Assistant  
‣ Conduct statistical analysis and produce tables for Population-based HIV Impact Assessment (PHIA) project  
SAS Survey method
- 12/2014 - 11/2015 | **Simons Foundation Autism Research Initiative (SFARI)** | New York, NY  
Research Assistant  
‣ Conduct latent class analysis (LCA) to identify the patterns of abnormality in cognitive, behavioral, neurological, and anthropometric phenotypes among 16p11.2 deletion/duplication children  
‣ Simons Variation in Individuals Project (SVIP) quantitative analysis using linear mixed models  
SAS R Missing Data LCA Mixed effects model
- 09/2012 - 05/2013 | **International Vaccine Institute (IVI)** | Seoul, Korea  
Research Assistant  
‣ Statistical analysis) Case fatality rate and length of hospital stay among patients with typhoid intestinal perforation in developing countries : A systematic literature review, 2014  
‣ Data management and literature review regarding typhoid vaccine  
R SAS Stata Simulation Efficacy Cost-effectiveness analysis
- 09/2010 - 02/2011 | **Office of Admissions, University of Seoul** | Seoul, Korea  
Data Analyst  
‣ Statistical analysis for publishing annual report  
R SAS SPSS

## Publications

---

### Published

- **Jihui Lee**, Gen Li, William F. Christensen, Gavin Collins, Matthew Seeley, Anton Bowden, David Fullwood, and Jeff Goldsmith. **“Functional Data Analyses of Gait Data Measured Using In-Shoe Sensors.”** Statistics in Biosciences (2018).
- Julia P. Owen, Polina Bukshpun, Nicholas Pojman, Tony Thieu, Qixuan Chen, **Jihui Lee**, Debra D’Angelo, Orit A. Glenn, Jill V. Hunter, Jeffrey I. Berman, Timothy P. Roberts, Randy Buckner, Srikantan S. Nagarajan, Pratik Mukherjee, and Elliott H. Sherr. **“Brain MR Imaging Findings and Associated Outcomes in Carriers of the Reciprocal Copy Number Variation at 16p11. 2.”** Radiology (2017) : 162934.

### Submitted

- **Jihui Lee**, Gen Li, and James D. Wilson. **“Varying-Coefficient Models for Dynamic Networks.”** (Submitted) Computational Statistics & Data Analysis. Preprint available at arXiv :1702.03632 (2017).  
\*A version of this manuscript won an ENAR 2017 Student Paper Award.

### In Preparation

- **Jihui Lee**, Jesse Hammond, and Yoonjung Lee. **“Detecting Changes in Congressional Twitter Networks.”**
- **Jihui Lee**, Jeff Goldsmith, and Gen Li. **“Multilevel Stochastic Blockmodel for Dynamic Networks.”**
- Anthony Diaz, **Jihui Lee**, Jaspreet Kaur, Arman Mushtaq, and Margaret Omatsone. **“Effect of Co-Administration of Long-Acting Insulin in Acute Management of Diabetic Ketoacidosis.”**

## Teaching Experience

---

**Instructor** : Full responsibility of curriculum, lectures, homework and exams

|   |   |
|---|---|
| <b>Columbia University</b>  | New York, NY                                      |
| > Statistical Computing with SAS (P6110 : Master Level)             | Spring 2016 - 2018; Fall 2016 - 2017; Summer 2018 |
| > Introduction to Biostatistics (P6103 : Master Level)              | Summer 2014 - 2018                                |
| — Biostatistics Enrichment Summer Training Diversity Program (BEST) |   |
| — Columbia Summer Institute for Training in Biostatistics (CSIBS)   |   |

**Teaching Assistant** : Holding regular office hours & tutorials and grading assignments

|   |                    |
|---|--------------------|
| <b>Columbia University</b>                                      | New York, NY       |
| > Theory of Statistical Inference 2 (P9110 : Ph.D. Level)       | Spring 2016 - 2017 |
| > Theory of Statistical Inference 1 (P9109 : Ph.D. Level)       | Fall 2014 - 2016   |
| > Linear Regression Models (P8111 : Master Level)               | Spring 2015        |
| > Introduction to Biostatistical Methods (P6104 : Master Level) | Summer 2014, 2017  |
| <b>Seoul National University</b>                                | Seoul, Korea       |
| > Statistical Seminar (Undergraduate Level)                     | Spring & Fall 2012 |
| <b>University of Seoul</b>                                      | Seoul, Korea       |
| > Mathematical Statistics (Undergraduate Tutor)                 | Fall 2011          |

## Presentations

---

|  |               |
|--|---------------|
| 06/08/2018 <b>Political Networks (PolNet) Workshops and Conference</b><br><i>Detecting Changes in Congressional Twitter Networks</i><br><i>The 11th Annual Political Networks Workshops and Conference</i> | Arlington, VA |
| 04/02/2018 <b>Columbia University</b><br><i>Functional Data Approaches to Temporally Heterogeneous Data</i><br><i>Doctoral Research Symposium</i>  | New York, NY  |
| 03/25/2018 <b>Eastern North American Region (ENAR)</b><br><i>Functional Data Analyses of Gait Data</i><br><i>ENAR 2018 : Poster presentation</i>   | Atlanta, GA   |
| 03/21/2018 <b>Columbia University</b><br><i>Functional Data Analyses of Gait Data</i><br><i>Graduate Student Research Seminars (GSRS)</i>  | New York, NY  |
| 02/06/2018 <b>Columbia University</b><br><i>Functional Data Analyses of Gait Data</i><br><i>Functional Data Analysis Working Group (FDAWG)</i>   | New York, NY  |
| 07/31/2017 <b>Joint Statistical Meetings (JSM)</b><br><i>Varying-coefficient models for dynamic networks</i><br><i>JSM 2017 : Speed oral and poster presentations</i>                                      | Baltimore, MD |

- 07/28/2017 **North American Social Networks (NASN) Conference** Washington, DC  
*Varying-coefficient models for dynamic networks*  
*The 1st NASN of the International Networks for Social Network Analysis (INSNA)*
- 06/16/2017 **Political Networks (PolNet) Workshops and Conference** Columbus, OH  
*Varying-coefficient models for dynamic networks*  
*The 10th Annual Political Networks Workshops and Conference*
- 04/05/2017 **Data Science Institute (DSI), Columbia University** New York, NY  
*Varying-coefficient models for dynamic networks*  
*Data Science Day : Poster presentation*
- 03/14/2017 **Eastern North American Region (ENAR)** Washington, DC  
*Varying-coefficient models for dynamic networks*  
*ENAR 2017 : Contributed papers*
- 02/23/2017 **Columbia University** New York, NY  
*The beauty of `ggplot2`*  
*Columbia Biostatistics Computing Club (CBCC)*
- 10/13/2016 **Columbia University** New York, NY  
*Incorporating the Function-on-Scalar Regression with Curve Registration via Variational Bayes*  
*Graduate Student Research Seminars (GSRS)*
- 10/11/2016 **Columbia University** New York, NY  
*A Family of Functional Exponential Random Graph Models for Dynamic Networks with Temporal Heterogeneity*  
*Functional Data Analysis Working Group (FDAWG)*
- 09/29/2016 **Data Science Institute (DSI), Columbia University** New York, NY  
*Functional Exponential Random Graph Models for Time-Varying Networks*  
*DSI Poster Social and Competition (First runner-up)*
- 03/29/2016 **Columbia University** New York, NY  
*Functional Exponential Random Graph Models for Smoothly Transitioning Networks*  
*Functional Data Analysis Working Group (FDAWG)*
- 03/24/2016 **Columbia University** New York, NY  
*Functional Exponential Random Graph Models for Smoothly Transitioning Networks*  
*Graduate Student Research Seminars (GSRS)*
- 03/03/2015 **Columbia University** New York, NY  
*Weighted and Generalized Least Squares*  
*P8111 Linear Regression Models (Guest Lecturer)*
- 02/24/2015 **Columbia University** New York, NY  
*Data Visualization with `ggplot2`*  
*Functional Data Analysis Working Group (FDAWG)*

## Software Development

---

### **R Package 'VCERGM'**

- > Implement varying-coefficient random graph models (VCERGMs) on dynamic networks
- > R package is available at <https://github.com/jihuilee/VCERGM>.

### **R Package 'DigiPheno'**

- > Preprocess, visualize, and analyze smartphone or wearable device data
- > R package is available at <https://github.com/jihuilee/DigiPheno>.

---

## Skills

- > R, SAS, SPSS, C++, Python
- >  $\text{\LaTeX}$ , Microsoft Office
- > English, Korean

---

## Membership

- > American Statistical Association (ASA)
- > Eastern North American Region (ENAR)
- > Korean Statistical Society (KSS)
- > International Chinese Statistical Association (ICSA)

---

## Academic Activities

### **Weill Cornell Medicine Biostatistics Computing Club**

Department of Healthcare Policy & Research, Weill Cornell Medicine  
Founder & Meeting Organizer

New York, NY  
2018 - Present

### **Functional Data Analysis Working Group (FDAWG)**

Department of Biostatistics, Columbia University  
Active Member

New York, NY  
2013 - 2018

### **Graduate Student Research Seminar**

Department of Biostatistics, Columbia University  
Group Organizer

New York, NY  
2016 - 2017

### **Stony Brook University**

Exchange Program in Applied Mathematics and Statistics (AMS)

Stony Brook, NY  
Spring 2010

---

## Service

**Healthcare Data Analytics Career Panel**, Columbia University  
Career Panel

New York, NY  
04/25/2018

### **ENAR 2018 Spring Meeting**

Session Chair : Electronic Health Records

Atlanta, GA  
03/28/2018

### **ENAR 2017 Spring Meeting**

Poster Judging Coordination

Washington, DC  
03/12/2017

### **Doctoral Program Subcommittee on Biostatistics (DPSOB)**, Columbia University

Student Representative

New York, NY  
2016 - 2018

### **Biostatistics Student Cohort (BSC)**, Columbia University

Ph.D. Representative

New York, NY  
2014 - 2018

### **KSS Spring Conference of Probability and Statistics**

Conference Coordination : Hosting international participants as a translator

Seoul, Korea  
07/01/2017 - 07/02/2017

**Uijeongbu Girls' High School**

Mathematics Tutor

Uijeongbu, Gyeonggi, Korea

Summer & Winter 2008

**Department of Statistics, University of Seoul**

Departmental Student Representative

Seoul, Korea

2007 - 2009