## **Dohoon Lee**

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#### **EDUCATION**

Sep. 2017 ~ Seoul National University Seoul, Korea

Present Interdisciplinary Program in Bioinformatics

PhD Student

Advisor: Prof. Sun Kim

Mar. 2013 ~ Seoul National University Seoul, Korea

Aug. 2017 School of Biological Sciences

B.S., Major: Biological Sciences, Minor: Computer Science and Engineering

Honors: summa cum laude (GPA 4.21/4.3)

# RESEARCH INTEREST

### • Computational Biology/Epigenomics

- ✓ Inferring subclonal structure of cancer using next-generation sequencing data
- ✓ Multi-omics integrative and genome-wide computational analysis of epigenomes

### Artificial Intelligence in Bioinformatics

✓ AI-based modeling of epigenomes

### • Reproducibility in Bioinformatics Research

✓ Establishing reproducible and reusable bioinformatic pipelines

## **PUBLICATIONS**

- <u>D. Lee</u>, S. Lee, S. Kim (2019), PRISM: methylation pattern-based, reference-free inference of subclonal makeup, Bioinformatics.
- 2. <u>D. Lee</u>, Y, Park, S. Kim (2020), Towards multi-omics characterization of tumor heterogeneity: a comprehensive review of statistical and machine learning approaches, Briefings in Bioinformatics.
- 3. M. Kang, S. Lee, <u>D. Lee</u>, S. Kim (2020). Learning Cell-Type-Specific Gene Regulation Mechanisms by Multi-Attention Based Deep Learning with Regulatory Latent Space. Frontiers in Genetics.
- M. Oh, S. Park, S. Lee, <u>D. Lee</u>, S. Lim, D. Jeong, K. Jo, I. Jung, S. Kim (2020). DRIM: A web-based system for investigating drug response at the molecular level by condition-specific multi-omics data integration. Frontiers in Genetics.

### **CONFERENCES**

- 1. <u>D. Lee</u>, S. Lee, S. Kim (2019), "PRISM: methylation pattern-based, reference-free inference of subclonal makeup", ISMB/ECCB 2019, Basel, Switzerland *Oral presentation (Proceedings presentation).*
- 2. <u>D. Lee</u>, S. Lee, S. Kim (2019), "PRISM: methylation pattern-based, reference-free inference of subclonal makeup", BIOINFO 2019, Seoul, Korea *Oral presentation (Award lecture session)*.

3. <u>D. Lee</u>, S. Lee, S. Kim (2019), "PRISM: methylation pattern-based, reference-free inference of subclonal makeup", The Second Korea-Japan Machine Learning Workshop, Jeju, Korea – *Poster presentation*.

# RESEARCH EXPERIENCES

- **Research Intern** at School of Biological Sciences, Seoul National University Sep. 2015 ~ Dec. 2016
  - ✓ Gut metagenome-based Type 2 diabetes prediction model using machine learning techniques

## **AWARDS AND HONORS**

2020	Youlchon AI for All fellowship, Youlchon Foundation, Korea
2019	Outstanding Paper Award, BIOINFO 2019, Seoul, Korea
2019	Merit Award: Bronze prize, 45th Annual Meeting of Korean Cancer Association and 5th International Cancer
	Conference, Seoul, Korea
2017	Graduation with honors: summa cum laude, Seoul National University, Korea
2015 ~ 2016	KEF Domestic Scholarship, Kwanjeong Educational Foundation, Korea