# Joonho Bae

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Room 4217, E2-1, 291, Daehak-ro, Yuseong-gu, Daejeon, Republic of Korea

#### **EDUCATION**

Korea Advanced Institute of Science and Technology

2017 - Present

M.S. Candidate in Industrial & Systems Engineering

Seoul National University

2009 - 2016

Bachelor of Science in Statistics, Minor in Financial Economics

#### RESEARCH INTERESTS

Methodology

Statistical Machine Learning, Stochastic Processes Nonparametric regression, Dynamic Tensor analysis, Change-point Detection

Domain

Mobile Application Usage Modelling, Leisure Activity Modelling, Anoamly Detection in Sensor Data

#### **PUBLICATION**

- [1] (Submitted) **Bae, J.**, Park, J., Choi, J. Nonparametric Bayesian Dynamic Tensor Factorization.
- [2] (Submitted) Frequency-based Anomaly Detection via Multi-output Log Gaussian Cox Process
- [3] (Submitted) Detecting a Change in Relationship Status using Smartphone: From a Single to a Couple

#### CONFERENCE PRESENTATIONS

- [1] The Recommender System for Mobile Apps, 2018 Global Marketing Conference, Tokyo, Japan.
- [2] Frequency-based Anomaly Detection via Multi-output Log Gaussian Cox Process, 2018 Stochastic Processes and their Applications, Gothenburg, Sweden.
- [3] Detecting a Change in Relationship Status using Smartphone: From a Single to a Couple, *INFORMS Annual Meeting 2018*, Phoenix, AZ.
- [4] Frequency-based Anomaly Detection via Multi-output Log Gaussian Cox Process, INFORMS Annual Meeting 2018, Phoenix, AZ.

### WORK EXPERIENCE

SK TELECOM

2015 - 2017

Marketing Manager

Managed 58 retail stores (T store)

Launced/Closed stores based on the feasibility studies

Optimized mobile phone inventories and elevated financial soundness

Constructed computer system of distributing inventories

## CHAM SON GIL Cooperative

2013 - 2014

Founding Member, Project Manager

Established a healing center for the blind masseurs (www.chamsongil.com) Developed B2B/B2C services & products

Achieved more than \$100,000 sales revenue on 2014

Ensured average salary of \$3,000 per month for 12 masseurs

Research Intern Developed/Revised KESS (Korean Educational Statistics Software : Excel VBA software) Advisor: Professor Sinsup Cho HHC, 8th U.S.ARMY 2010 - 2012 Sergeant Served in the military as a KATUSA (Korean Augmentation To the United States Army) AWARDS& KOSAF FELLOWSHIP 2009 - 2014 HONORS National Scholarship For Science & Engineering, KOSAF SOCIAL VENTURE IDEA 2014Ministry of Employment & Labor, Republic of Korea SK SOCIAL ENTERPRISE 2013 SK Happiness Foundation ARMY COMMENDATION MEDAL 2012 8th U.S.ARMY SAMSUNG HEAVY INDUSTRIES RESEARCH 2018 - Present **PROJECTS** Dynamic modeling smart ship system based on sensor data TNS GLOBAL 2017 - Present Modeling mobile app usage based on log data IE 241 Engineering Statistics 1 **TEACHING** 2018 Spring **EXPERIENCE** Lecturer of two discussion sessions **LANGUAGES** Korean: Native English: Advanced Programming Language: Python, C, Matlab

Statistical Softwares: R, SAS, Excel VBA

Department of Statistics, Seoul National University

2012 - 2013

# COURSES 2017 Spring

 $\mbox{IE } 632:$  Stochastic Modeling I

IE 661: Applications of AI/Data Mining Technology

EE 531: Statistical Learning Theory

#### 2017 Fall

IE 539 : Convex Optimization

 $\rm EE~827:$  Bayesian Estimation and its application  $\rm EE~837:$  Deep Learning for Computer Vision

### 2018 Spring

IE 801: Game Theory with Engineering Applications

EE 807: Mathematical Foundation of Reinforcement Learning

### 2018 Fall

IE 671 : Stochastic Modeling II