Hyung-Kwon Ko

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INTERESTS

- Algebraic topology & Multidimensional geometry
- Data dimensionality reduction and its visualization based on graphs and topological analysis
- Enhancing performance of support vector machine with topological distance

EDUCATION

- **Hanyang University** Seoul, Republic of Korea
  B.S. in Mathematics, Minor in Industrial Engineering *Mar 2014 – present*

EXPERIENCE

- **LG Electronics** Seoul, Republic of Korea
  Home electronics company, Cloud center, Service development team, Intern *Jan 2019 - present*
    - **Worked on data mining project in customer relationship management(CRM) for sales promotion**

- **Wesley Quest** Seoul, Republic of Korea
  Strategic consulting firm, Big data team, Research associate *Jun 2018 - Aug 2018*
    - **Participated in two big data projects. Made deep-learning based prediction model using Python**
      1) Improvement of the management system and air quality in Seoul Metro (Client: Seoul Digital Foundation)
      2) Inventing the model of predicting the workers compensation using big data (Client: Korea Workers Compensation and Welfare Service)

- **Lab for Probability and Statistical Modeling** Seoul, Republic of Korea
  Lab of professor Suk-Joo Bae in Hanyang University, Undergraduate intern *Mar 2017 - Nov 2017*
    - **Participated in Hyundae Motors reliability analysis projects**
      1) Improvement on the component reliability using the warranty claims data
      2) OBD sensor data analysis

- **Actors Theatre Workshop** New York, NY, USA
  Nonprofit organization, Intern *Mar 2016 - Aug 2016*
    - **Program staff:** Helped unprivileged children in NYC with therapeutic programs
    - **Fundraising work:** Wrote proposal letters to NYC councilman for fundraising

AWARDS

- **3rd place in Big Contest**
  Open contest held by National Information Society Agency and Korea Bigdata Forum *Aug 2018 - Oct 2018*
    - Developed 'Financial Information Index for Individual User' with Shinhan Bank's customer data

- **2nd Place in Artificial Intelligence Novel Competition**
  Open contest held by KT and KOCCA *Mar 2018 - Aug 2018*
    - Made deep learning-based Korean sentence recommender which uses BiLSTM and Doc2Vec algorithm
    - Received an opportunity to participate in KT's next project and 20,000,000 KRW of prize money

- **2nd Place in Academical team research**
  Natural science college of Hanyang University *Mar 2017 - Nov 2017*
    - Predicted the number of visitors of children's grand park with regression, SVR and time series model

Programming Skills

- **Languages**: Python(tensorflow, keras), R, C/C++, JavaScript(node, d3.js), Matlab, SQL

- **Technologies & Tools**: git, vim, AWS, LaTeX

Military Service

- **Transferred from active service to first reserve**
  11th Division, Administrative Clerk   *Jun 2011 - Mar 2013*