Grace (Hae-Soo) Esther Lee

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Education and Training

Seoul National University   Seoul, South Korea
Master's in Computer Science, **GPA:4.13/4.3(97.3%)**   Mar 2018 - Present

University of Illinois, Springfield   Springfield, Illinois
Bachelor of Arts in Computer Science, Online Degree, **GPA: 3.94**   Jan 2016 -

Johns Hopkins University   Baltimore, Maryland
Bachelor of Arts in Public Health   Sep 2007 - May 2012

Technical Skills and Accomplishments

Programming/Languages	Python(2017-Present), Java6-8(2014-Present), Android(2016), Javascript(2014, 2017), Spring(2014-2017), Keras(2017-Present), Tensorflow(2017-Present), D3(2018-Present) Enjoy unit tests and functional tests
Database Management	Oracle RDBMS(2014-2015), MariaDB(2016-Present), PostgreSQL(2018-Present), MongoDB(2017-Present), SQLite(2018)
Tools	DataGrip, IntelliJ, pyCharm, Eclipse, Slack, JIRA, Jenkins, Git, Android Studio, GoCI, Jupyter Notebook, Spyder3
Language	Fluent in English and Korean

Experience

Seoul National University, Database System Lab (dbs.snu.ac.kr)   Seoul, South Korea
Researcher   Jan 2018 - Present

Drug Repurposing Through Drug and Adverse Effect Pair Extraction from Published Literature

- Responsible to build a knowledge construction base pipeline for drugs and adverse effects from the published literature with machine learning and natural language processing such as document clustering, named entity recognition.
- Python3, Java8, PostgreSQL, Jupyter Notebook, pyCharm, keras, tensorflow, Git, D3, nltk, gensim, D3, spaCy

Samsung SDS, Agile Core Team (www.samsungsds.com)   Seoul, South Korea
Software Engineer   Feb 2016 - Dec 2017

NexShop Micro Service Architecture, Remote Management System   Aug 2017 - Dec 2017

- Responsible as an anchor of the project to develop retail marketing display device management server and provide related APIs along with continuous integration and testing environment
- Java8, Spring Boot, MongoDB, AWS(S3, EC2, Elastic Beanstalk), Docker, IntelliJ, Git, Jenkins, JIRA

NexShop Retail Marketing Display Player   Jan 2017 - July 2017

- Responsible as an anchor of the project to develop web player application for Tizen LFD
- Javascript ES6, Babel, Redux, Webpack, Jenkins, Webstorm, Git, JIRA

Xeed, Fresh Food Pick-up Reservation Service   Dec 2016 - Jan 2017

- Develop android application and respective server with continuous integration and testing environment

- Java8, Android, Mockito, AWS(S3, DynamoDB), Eclipse, JIRA, Git, Bitbucket, CircleCI

Daegu Bank Android Library with Fido   Aug 2016 - Dec 2016

- Develop android library and server for Daegu Bank utilizing Fido(Fast IDentity Online) alliance
- Java6, Android, Mockito, Spring, JPA, Docker, MariaDB, Git, Go CI, IntelliJ

Samsung Life Sales Support System POC   July 2016

- Develop insurance sales support application for tablet(Window10) utilizing Electron
- Javascript, Git, Electron

Wellness, Mobile Application for Diabetic Patients   Mar 2016 - June 2016

- Develop a mobile application and respective server system for diabetic patients to monitor health condition such as glucose level via Bluetooth connection to a glucose meter
- Java8, Android, Mockito, MySQL(MariaDB), Spring, Git, Go CI

Samsung SDS, Solution Development Group   Seoul, South Korea
Software Engineer   Aug 2014 - Feb 2016

Electronic Health Record Solution   Nov 2014 - Feb 2016

- Develop common library and Delphi components for all hospital departments
- Delphi, Java6, Oracle 11g, SVN, Git, Jenkins

Samsung Convergence Software Academy   Seoul, South Korea
Trainee for Computer Science Track   Dec 2013 - June 2014

- Awarded top final four for project competition as with Real Time Health Monitoring System with Mobile Application for Patients with Chronic Disease and Care Providers
- Java6, Android, Javascript, Oracle 11g, jquery

Personal Project

Medical Data and Machine Learning Group, SeoulAi   Jan 2019 - Present
http://seoulai.com/project/medical-data-and-machine-learning

- Temporal data analysis in MIMIC-III with Sankey diagrams and visualizations
- Python3, psql, D3

Medical Informatics Analysis - Advance course(Asan Hospital, Seoul)   Oct 2018 - Dec 2018
https://github.com/joyce04/medical_informatics

- Learn diverse medical informatics analysis technologies from medical images, genomics, and EHR
- Data analysis project for predicting unexpected readmission of patients with liver diseases

Visualization Cross-Platform Application   Sep 2018 - Present
https://github.com/joyce04/electron_visualization

- Visualize diverse charts and tools for topic modeling and text classification results with D3 and electron.
- Python3, Flask, Javascript, D3, electron

Football Analysis (Winning Goal, Key Performance Indicators)   Dec 2017 - Aug 2018
https://github.com/madigun697/football_data_analysis.git

- Collect football data via crawling and converting PDF files and analyze the impact of the first goal of winning and trends of goals time through statistics and machine learning
- Python3, keras, tensorflow, MariaDB, Slack

North Korean Elite Network Analysis   Mar 2018 - June 2018

- Collect information on North Korean Officials via crawling and create an overall network of the society

applying different weights on education, career history, family and more
- Python3, networkX, Selenium, MariaDB

Teaching Assistant Experience

Seoul National University Big Data Academy   Seoul, Urban Data Science Laboratory
https://github.com/joyce04/python_database_class   Nov 5 - Nov 9 2018

- Big Data Programming hands-on session with Python, Pandas, Numpy, SQLite, MongoDB