To Eun **Kim**

NATURAL LANGUAGE PROCESSING | INFORMATION RETRIEVAL | KNOWLEDGE REPRESENTATION | DIALOGUE SYSTEM | MACHINE LEARNING

✉ to.kim.17@ucl.ac.uk | 🏠 kimdanny.github.io | 🐙 kimdanny | 💼 danny-toeun-kim

Education

University College London (UCL) *London, UK*

M.ENG. COMPUTER SCIENCE (BS/MS) *Sep 2018 - (Jun 2022)*

- UK First-Class Honours predicted (4.0 in US GPA scale)

Research Experience

Amazon 2021 Alexa Prize TaskBot Challenge *London, UK*

UCL WEB INTELLIGENCE GROUP *Jun 2021 - (Jun 2022)*

- Mostly in charge of engineering Alexa Skills Kit and AWS products as well as other units for Task-oriented Dialogue System
- Supervised by Professor **Aldo Lipani**

Undergraduate Researcher @ UCL CSML (ELLIS Unit at UCL) *London, UK*

UCL COMPUTATIONAL STATISTICS AND MACHINE LEARNING GROUP *May 2021 - Present*

- Misinformation Detection (Verasity Prediction) on Social Media with Dynamic Graph Neural Network (DGNN)
- Supervised by Professor **Emine Yilmaz** and **Aldo Lipani**

Olfactory NLP *London, UK*

UCL HUMAN-COMPUTER INTERACTION CENTRE *Oct 2020 - Mar 2021*

- Group Research Paper: *Exploring the potential of automating the process of clustering smell stories* **[paper] [code]**
- Literature Review: *An NLP Approach to Classify Smell Experiences* **[paper]**

Work Experience

CS Transition Mentor *UCL, London, UK*

UNIVERSITY COLLEGE LONDON *Sep 2020 - May 2021*

- Transition Mentor for 1st year CS students. Help smooth transition to UCL by helping school-issues as well as coding.

Data Analyst Summer Intern *Yeongdeungpo-gu, Seoul, S.Korea*

KB SECURITES (KB 증권) *Jun 2020 - Aug 2020*

- Led a rule-based Investment Funds Recommender System project based on Network Analysis, Hierarchical Clustering and Association Rule Mining
- Piloted Stock Price Prediction System using LSTM Network and Natural Language News Data **[Github Repo.]**
- Piloted a Social Media Monitoring System using KB's NLP Engine and Automation (RPA) software
- Use of Hadoop ecosystem (Map-reduce, Hive and Hue)

Software (Dialogue System) Engineer & Industrial Exchange Network Partner *London, UK*

ROYAL COLLEGE OF GENERAL PRACTITIONERS (RCGP) *Oct 2019 - Apr 2020*

- Built a task-oriented chatbot that assists in checking software compliance regimes that three bodies of British Healthcare Organisation have which makes longer time-to-market and a delay in cash flow
- Implemented RESTful API server for user intents and entities detection
- Built and deployed Task-oriented Chatbot service using Dialogflow and React/Express/ Node/MongoDB
- Made python scripts for Chatbot Integration Testing **[code]**

Society/Service

NLP paper study group (집현전) *virtual*

SEASON 2 ORGANIZER **[GITHUB REPO.]** *May 2021 - (Nov 2021)*

UCL Artificial Intelligence Society *UCL, London, UK*

DEVELOPER RELATIONS(19/20) —> HEAD OF TUTORIALS TEAM(20/21) —> ML OFFICER(21/22) *Sep 2019 - Present*

- Main contributor and lecturer of **Machine Learning Tutorials [YouTube playlist]**
- Teaching Assistant in Advanced Python Tutorials

Projects

Stanford CS229 Supervised Learning VIP Cheatsheet Korean translation
Github

OPEN-SOURCE CONTRIBUTOR [PULL REQUEST]
Jan 2021

S.Korea COVID-19 Dataset
Kaggle

KAGGLE DATASET CONTRIBUTOR
Feb 2020 - Present

- The first South Korean COVID dataset on Kaggle with MERS and SARS [kaggle dataset]
- 3,900 Views and 457 Downloads (Accessed on: Jun 2021)

Jsh: bash-like shell in Java
UCL, London, UK

PROJECT BY TEAM OF 3 MEMBERS
Oct 2019 - Jan 2020

- Low and High level Code Refactoring & Agile Methodology
- TDD and DevOps (Unit&System Testing by JUnit, Branch&Instruction Coverage tests, Blackbox testing&Fuzzing, Static Analysis)
- Implemented in Factory, Decorator and Visitor Design Patterns

Relationship-Expert (Hackathon at FB London)
Facebook, London, UK

BUILDING CONVERSATIONAL AI FOR MESSENGER HACKATHON
Dec 7-8 2019

- Built a messenger-bot that checks if user's reply to one's lover is okay to send or not [Github Repo.]
- Fine-tuned a Transformer Language Model (BERT) using Pytorch for Sentiment Analysis
- Deployed the model with Facebook Messenger API (Node.js) and a Flask server

Professional Training

Google Developers Korea Machine Learning Bootcamp
virtual (GDG Korea)

TRAINEE
Oct 2020 - Jan 2021

- 4-month-long ML Bootcamp hosted by Google Developers Korea. Education fees are all funded, selected in one of 8% of 3K+ applicants.
- Earned Deep Learning Certificate by weekly assignments
- Attended weekly tech-talks and clinics

UCLQ Quantum Tech Summer School
UCL, London, UK

TRAINEE
Sep 2020

- As one of 27students, selected internationally for a week-long Quantum Computation crash course
- Basics of quantum physics and its application to computation
- Tools: IBM Quantum Experience and Qiskit

KAIST Artificial Intelligence Bootcamp
Yangjae AI Hub, S.Korea

TRAINEE
Jun 2019 - Aug 2019

- 5 hours-long lectures 5 days a week, covering wide range of theory of ML & DL
- Project 1: Kaggle Titanic - 81% Accuracy [code]
- Project 2: Neural Style Transfer. Model comparison, Feature map visualisation and Hyperparameter Tuning [code]

Awards/Grants

2021	**Centenary Award**	20/21 UCL best societies award (Artificial Intelligence Society)	*UCL Student Union*
2021	**Summer Research Grant**	CS undergraduate summer research grant	*UCL CS Dept.*

Certifications

2020	**Deep Learning Specialization**	5 courses on Coursera - Prof. Andrew Ng	*deeplearning.ai*
2020	**The Fundamentals of Digital Marketing**	Google Adsense, Search console, SEO, etc.	*Google D.G*
2020	**Introduction to AI in the Data Center**	Data centre Architecture and GPU accelerated computing	*NVIDIA*
2020	**JavaScript Essential Training**		*LinkedIn Learning*
2019	**KAIST Aritficial Intelligence Bootcamp**	Certificate of Completion	*KAIST & Seoul Gvmt.*

Professional Skills

Programming	Python, R, Java, C, Haskell, JS, Arduino, Processing
ML / DL	Tensorflow 2, Pytorch, Keras, OpenCV, Scikit-Learn
Data Skill	SQL, Hadoop, SAS, Numpy/Pandas/Matplotlib, Tableau, Web-Scraping
SW-Dev	Node, Express, React, Flask, MongoDB, PostgreSQL,
Platforms	Linux, Git, Docker, AWS, Google Cloud Platform(GCP)