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

Research Experience

Amazon 2021 Alexa Prize TaskBot Challenge   *London, UK*
UCL WEB INTELLIGENCE GROUP   *Jun 2021 - (Jun 2022)*
- 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*
- Research proposal on Misinformation Detection / Verasity detection on Social Media with Dynamic Graph Neural Network (DGNN)
- Supervised by Professor **Emine Yilmaz** and Doctor **Qiang Zhang**

Olfactory NLP   *London, UK*
3RD YEAR RESEARCH PROJECT @ 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)*
- Task-oriented Dialog System Survey (Presentation spoken in Korean) **[Slides] [Video]**

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

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*

- Took 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]

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

Awards/Grants

2021	**Centenary Award** 20/21 UCL best societies award (Artificial Intelligence Society)	*UCL Student Union*
2021	**CS Undergraduate Summer Research Internship Fund**	*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.*

Side Works

Website Maintainer
London, UK

UCL KOREAN SOCIETY *Jul 2020 - May 2021*

- User DB Management and Web-mail automation

Korean Language Tutor
London, UK

UCL KOREAN CULTURE SOCIETY *Sep 2020 - May 2021*

- Biweekly teaching (Zoom session) with K-Pop lyrics to UCL students

Blogger

TEKNOLOGY: MY PERSONAL TECH BLOG

2019 - Present

- Technical and random things at `https://kimdanny.github.io/categories/list`

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, Web-Scraping
SW-Dev	Node, Express, React, Flask, MongoDB, PostgreSQL,
Platforms	Linux, Git, Docker, AWS, Google Cloud Platform(GCP)