Resume

Personal Information

- Name : Young Hoon Kim
- Date of Birth : May 1th, 1985
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Core Competencies

- Refining raw data and making the decision through insightful consideration and analysis of data
- Improving speech recognition quality through data analysis learned from language models
- Knowledge building work : intent classification and entity recognition
- Python(numpy, pandas, matplotlib), Tensorflow, CNN, RNN
- Linux, Github
- Creating numerical report data by working with documents (Office programs : Excel)
- English : TOEIC 775 (2023.09.24)

Education

Soongsil University Graduate School Master's course (Major : Artificial Intelligence)	Mar. 2021 ~ Aug. 2023
Hankuk University of Foreign Studies Bachelor (Major : Economics / Minor : Business)	Mar. 2005 ~ Feb. 2013
Joongang High School	Mar. 2001 ~ Feb. 2004

Employment History

DFLUX C&C(AICC SERVICE TEAM)	Jul. 2023 ~ Dec.2023 (5 months)
KT DS(AICC SERVICE TEAM)	Aug. 2021 ~ Jul. 2023 (1 year 11 months)
CJ BIOSCIENCE (FINANCE TEAM)	Nov. 2017~Mar.2021 (3 years 5 months)

Military Service

Full-time discharge as an army sergeant (Auxiliary Police)	Aug. 2006 ~ Jul. 2008

Training

Python Big Data Analysis : Data type, if, loop, function, class, numpy, pandas, matplotlib	Mar. 2022 ~ Jun. 2022

Career Details

DFLUX C&C **Jul. 2023 ~ Dec. 2023(5 months)**

Freelancer, Knowledge building work part of AICC Service Team, AI/CX, KT DS

NH Investment & Securities voice capitalization project

- Analysis of counseling text : intent classification and entity name tagging
- Cross Validation, Test Set verification results: analysis of precision / recall / f1-score and error phrase
- Adding entity name dictionary, user dictionary, thesaurus : stock item name, financial product name, financial business name, etc.
- Morphological analysis : Improving mis extracted words by adjusting morpheme segments
- Transcription of consultation text : customer speeches related to ordering stock

KT DS **Aug. 2021 ~ Jul. 2023(1 year 11 months)**

Dispatched, Language Modeling part of AICC Service Team, AI/CX , KT DS, Dispatch company : Yesmanpower

KT DIGIKO AICC: Creating a language model based on N-gram

- Creating LM based on N-gram which is a NLP(natural language processing) tool with probabilistic numerical assignment
- Measuring the recognition rate of language models through voice data collected in real services like Madforgalic, VIPS, etc
- Improving the LM quality by adjusting the amount of learning of specific misrecognized phrases through PPL(perplexity) which is an evaluation metric in N-gram
- Working in Linux environment and using JIRA collaboration tools
- Deploying the created language model on a commercial server

CJ BIOSCIENCE **Nov. 2017 ~ Mar. 2021 (3 years 5 months)**

Assistant Manager, Finance team

1. **Fund management**
   - Managing by purpose of investment funds for each series and preparing reporting materials for an investment company
2. **Inventory and purchase data management**
   - Managing laboratory raw material on accounting view, analysis the cost of sale for increasing company sales
3. **Preparing of materials for accounting audit**
   - Preparing quarterly, semi-annual, annual audit data
   - Drawing up materials of inventory assets, purchases, cashable assets, short-term financial asset and foreign currency asset, etc.
4. **Preparing of review materials for IPO**
   - Creating comparative data yearly through raw data purification

Cover Letter

- Motivation for applying for a job

I experienced how AI technology is being integrated while working on data analysis of language models in the AI service team and intent classification and entity name recognition in the natural language processing department. For over two years, I have been analyzing the voice data from the AI contact center, between the phrases recognized by AI, and thinking about how to provide natural services to customers and help employees work more efficiently. I believe that my experience and consideration can further improve the quality of service provided by the company. Particularly, I think that the Excel skill I developed while working in the finance team is of great help in writing reports and organizing data in my later work and will be useful in the future. In addition, I collected data in the field through Python programming that I studied at educational institutions and graduate schools. After refining, I canl analyze and utilize it to contribute to the growth of the company.

- My Capabilities

I studied Python as a programming language. First, in order to implement the artificial intelligence algorithm in the graduate school curriculum, rather than approaching deep learning frameworks such as TensorFlow and Keras from the beginning, I implemented the algorithm step by step using only Python and mastered the operating principles in detail of the basics. However, since deep learning's CNN and RNN operation algorithms have relatively complex theories and a lot of code, I practiced implementing them in TensorFlow. Additionally, through in-depth study of economic mathematics and statistics in undergraduate school, I was able to easily understand concepts such as probability, statistics, linear algebra, and differential calculus necessary for understanding artificial intelligence. Based on this understanding of the overall theory and code of artificial intelligence and machine learning, deep learning, I would like to be in charge of AI learning model-deep learning research and development.

Additionally, I have experience writing a thesis for graduate school. Due to work conditions, I completed writing a thesis in the form of identifying company service problems and planning improvement measures. During this period, I was able to understand the overall structure (STT-NLP-TTS) of the AI contact center from a broad perspective, and at each stage, I diligently explored the current technology level and new technologies by searching other companies' services and related papers. Based on this experience, I can be the member needed to research and develop new AI technology.

Additionally, at my previous career in the finance team, I acquired ability to make Excel reports based on figures. And I also have appropriate English skills for communicating by e-mails and reading documents.

- Examples of work experience

During the initial AI contact center business, I was in charge of enhancing language modeling related to restaurant reservations. Our first client was VIPS, and I started collecting irregular data about restaurant reservations and inquiries based on the basic scenario flow. The initial recognition rate was in the 70%. By amplifying expected utterances and specific phrases such as date, day, and time with using Excel and Linux shell scripts, the recognition rate was raised to 90% before service launching. After launching the service, lines have

been expanded to all VIPS branches, and about 8,000 to 10,000 voice calls have been flowing in per day. To maintain service quality, I analyzed the incoming voice files and transcription data using Excel, and made practical improvements by adding misrecognized keywords and other ending of a word. Eventually, the recognition rate rose to 97%, and starting with this language model, our team able to provide services to other reservation-related restaurants and cafe companies.

During the NH Investment & Securities voice capitalization project, I was in charge of knowledge building and analyzed the original data of customer speech related to stock orders and financial products. I classified the intent of customer utterances and worked on recognizing entity names, such as stock names in sentences. If intent classification and entity name recognition were not performed properly, it often fell to non-extraction at the NLP stage. When we took over the project, the data extraction rate was 89%, but we later raised the extraction rate to 94-95 points by properly classifying parts that caused confusion in intent and conducting training by collecting a large number of unextracted sentences. By analyzing the exact cause of the problem through data to find a solution, we were able to obtain results that improved quality.

This experience will help to identify the types of data and provide insights needed for decision-making by collecting and refining the data through tools.