# **Jinhyeong Seo**

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## **Work Experience**

### Scatter Lab (Pingpong)

Aug 2018 – Sep 2020

### **Backend Software Engineer**

- Developed features and managed service for Luda (https://luda.ai), Al Social Friendly Chatbot
  - Built reply candidates server using Elasticsearch and developed retrieval system
    - Built token based indexes in master/data nodes on EC2 SSD instances with proper shards
  - Built embedding database of which size > 3TB for cache using MongoDB
  - Worked migrating whole services from AWS EC2 to Kubernetes system (AWS EKS)
  - Dockerized and built CI system using CircleCI, Github Actions with self-hosted and AWS ECR
- Built data pipelines and analytics system using Stackdriver, BigQuery, Data Studio and Airflow
  - Wrote BigQuery queries for stats and used Github Actions to synchronize BigQuery views
  - Built Airflow for batch jobs to backup, to predict conversation satisfactions
    - Regression for scoring using statistical features of model outputs, queries and replies
- Developed features and managed service for Pingpong Builder, B2B AI Chatbot builder
  - Dockerized and built CI system, and packaging services for on-premise (HAI, Hana bank)
- Developed whole services of Pingpong Japanese Demo (https://pingpong.us/jp)
  - Web page based on React, Lambda Handler, and Serverless Flask API server with PyTorch
- Optimized model codes and made RESTful API servers using Flask
  - Profiled codes and modified to remove bottlenecks (ex. use comprehensions, add caches, ...)
  - Built CI system using Jenkins and AWS ECR
- Maintained training servers including internal GPU Linux servers, NAS, and Cloud instances

#### **Technical Skills**

Languages: Python, Java, Javascript (Typescript)

Frameworks / Libraries: Docker, Spring (boot), Flask, PyTorch, Django, React.js, Faiss

Cloud Components: AWS (EC2, EKS, Lambda, Fargate,...), GCP (BigQuery, Data Studio, Stackdriver) Others: Docker, Kubernetes, Airflow, Github Actions, CircleCI, Jenkins, Zappa, Docker Compose

### Education

### **Seoul National University**

Mar 2014 – Present

Dept. of Computer Science and Engineering

### Interests

NLP, building pipelines, optimizing DL models, embedding search, and "productionizing"

### **Posts**

(Posts below are written during working in pingpong)

- https://blog.pingpong.us/ml-model-optimize/
  - Contributed to cloud support, optimizing computations
- https://blog.pingpong.us/kubernetes-in-pingpong/
  - Contributed to building Continuous Delivery System, setting Kubernetes
- https://blog.pingpong.us/chatbot-data-pipeline/
  - Contributed to building data pipelines, making queries, and managing by Github with Actions