Résumé: Jeayoung Jeon

MLOps and Cloud-Native Engineer (Last modified at 2024-06-27)

SUMMARY

My name is Jeayoung Jeon [🇰🇷 전제영]. I'm working at MAXST as an **MLOps**, **DevOps**, and **Cloud-Native Software Engineer**. I specialize in:

- 🧑‍🍳 Developing **Digital Twin Platforms** using **Cloud-Native APIs** and **ML pipelines**.
- 🏄 Building **Hybrid Kubernetes Clusters** with **On-Premise** and **Public Cloud**.
- 👷 Creating **Team Services** to enhance productivity through **GitOps**, **ChatOps** and **MLOps**.
- 🏯 Identifying best practices to bridge **team culture** and **new technologies**.
- 🚀 Balancing **performance** and **cost reduction** optimally.

For more details, please visit my portfolio (https://jyje.live/profile) or contact me (mailto:jyjeon+contact@outlook.com).

: **Anyang & Seoul, South Korea**

: **jyjeon@outlook.com**

: **LinkedIn** (https://linkedin.com/in/jyje)

: **Github** (http://github.com/jyje)

: **StackShare** (https://stackshare.io/jyje/jyje-pro-stack)

Work

Mar 2024 – *present*

Project Widearth: Digital Twin Platform with AR/VR at MAXST (https://maxst.com/en)

SUMMARY

Project Widearth (https://widearth.world): Point-cloud-based spatial mapping platform for digital twins. I am responsible for the development of ML pipelines, APIs and Infrastructure:

- **ML Pipeline** Design ML data pipelines using Argo Workflows and Hera Python SDK.
- **API** Making endpoints for the ML pipeline inference based on Python FastAPI.
- **Infrastructure** Building hybrid clusters with AWS EKS and bare-metal Kubernetes to reduce costs but keep system reliabilities. Hybrid clusters can reduce public cloud costs by more than 50%.

Jan 2023 – *present*

MLOps/DevOps Engineer at MAXST (https://maxst.com/en)

SUMMARY

Development of on-premise clusters providing DevOps and MLOps for Technology Division in MAXST:

- **AutoML** Making AutoML tuning hyperparameters with Katib and Argo Workflows without pre-build.
- **Data Lake** Storing pipeline results into storage and RDB. Visualizing with Grafana and Tensorboard.
- **JupyterHub** Generating On-Demand JupyterNotebook to distribute resources for ML researchers.
- **CI/CD** Designing Slackbot providing GitOps: Bitbucket Pipeline, Argo Workflows and Argo CD.
- **On-Premise** Building bare-metal Kubernetes clusters using IaC tools such as Ansible.

Jan 2021 – Dec 2022

Computer Vison Engineer at MAXST (https://maxst.com/en)

SUMMARY

Developing computer vision algorithms for AR/VR and Digital Twin Systems.

- Visual-SLAM Research for Digital Twin Systems
- Developing ICP Algorithm to Align 3D Point Clouds

Skills

SUMMARY

Here are my skills and highlighted items are industry-ready. More details are available on Stackshare (https://stackshare.io/jyje/jyje-pro-stack).

MLOps and AI/LLMOps :

Kubeflow **Data Pipeline** **AutoML Katib** Training Operator **JupyterHub** **PyTorch** **OpenCV** **Ollama** RAG

DevOps :

Kubernetes **Argo Workflows** **IaC** **Ansible** **Terraform** **Kubespray** **Grafana**

GitOps :

CI/CD **Argo CD** **Bitbucket Pipelines** **GitHub Actions** **Kaniko** **Docker/Multi-stage** **Slackbot**

Application Development :

Python/FastAPI **Unit Testing** **.NET/WPF** **.NET/MAUI** Unity

Programming languages :

Python **Go** **C#** C/C++ MATLAB

Tools :

Visual Studio Code **Visual Studio** Jupyter Notebook MATLAB/Simulink

OS and Hardware :

Windows **WSL2** **Ubuntu** **Alpine** **MacOS** **ARM64/Raspberry Pi** **AMD64/Bare Metal** FPGA

Jan 2012 – Aug 2020

Student Researcher with Integrated Program at POSTECH (https://eee.postech.ac.kr/)

SUMMARY

Studying and researching in the field of digital signal processing and computer vision. During my time as a graduate student at POSTECH, I had the privilege of working in several projects:

- **2018 - 2020 Computing and Control Engineering Lab.**
  - Virtual Visual-SLAM for Real-World Environments (https://postech-primo.hosted.exlibrisgroup.com/permalink/f/1031dvf/82POSTECH_INST21232402040003286)
- **2012 - 2018 Advanced Signal Processing Lab.**
  - Stereo Vision Algorithms for Image Depth Estimation
  - Real-Time Advanced Driver Assistance Systems using FPGA
    - Lane Mark and Traffic Sign Detection
    - Automotive Online Calibration in Stereo Vision

Education & Experience

Mar 2012 – Aug 2020

Master's Degree (Integrated Program) in Department of Electrical Engineering, Signal Processing & Computer Vision from Pohang University of Science and Technology (POSTECH) with GPA of 3.2/4.3

- Advanced Driver Assistance Systems (ADAS)
- Simultaneous Localization and Mapping (SLAM)
- Computer Vision Algorithms

Mar 2008 – Feb 2012

Bachelor's Degree in School of Electronic Engineering, Electronic Communication from Kumoh National Institute of Technology (kit) with GPA of 4.3/4.5

- Advanced Digital Signal Processing
- Visual Light Communication
- Electronic Communication with Complex Analysis
- Finite Programmable Gate Array (FPGA)

Certifications

Mar 2024 (Expired in Mar 2027)

CKA: Certified Kubernetes Administrator (https://www.credly.com/badges/d944bde7-222a-4ce5-b4e6-4e6c84df0ef8) **from The Linux Foundation**

Jun 2024 (Expired in Jun 2026)

CKAD: Certified Kubernetes Administrator (https://www.credly.com/badges/9e072a3a-57d0-403e-8bef-5831d618675c) **from The Linux Foundation**

Languages

Korean : Native

English : Working Proficiency