JAEHYUN SIM

ENGINEER | LEADER | SOLDIER

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Professional Experience

Head of Engineering, Ikigai Labs, Inc

April 2023 — Present

- Played a significant role in raising $25M Series A funding by leading both the data engineering team and the cloud infrastructure team
- Assist company executives in planning out engineering teams' quarterly project timelines and present to the board members
- Recruit, hire, and onboard engineering talents and implement strategies for the professional development of engineering team members

Director of Engineering, Ikigai Labs, Inc

August 2021 — April 2023

- Collaborate with other departments, such as product management, GTM, and operations by fostering effective communication
- Implement strategies for the professional development of engineering team members with education sessions and professional education opportunities
- Upgraded the existing data pipeline with Apache Arrow by installing Ray and Dremio as underlying layer of data transfer
- Design a multi-cluster service mesh with HA microservice cluster and distributed compute cluster

Software Engineering Manager, Ikigai Labs, Inc

June 2020 — July 2021

- Lead a group of developers and analysts in an Agile Software Development process which includes daily standups, reviews of code and new service proposal, and system testing
- Lead a testing platform implementation, including sanity check, load test, scale test, heartbeat test, and performance test
- Design and develop a highly scalable and embarrassingly parallel ETL / Data Wrangling platform

Software Engineer, Ikigai Labs, Inc

December 2018 — June 2020

- Designed and developed an on-demand predictive modeling platform from the ground up
- Overhauled an existing monolithic codebase into microservice structure with gRPC
- Utilized Kubernetes to orchestrate the deployment, scaling and management of Docker containers
- Designed and implemented a continuous and scalable build-deployment (CI/CD) system with Jenkins and Kubernetes to support on-demand releases

Data Engineer, Celect, Inc (Acquired by Nike, Inc)

April 2017 — September 2018

- Design and develop core computation / data processing / components of the Celect Choice Engine
- Develop statistical / machine learning approaches to real world, large scale problems
- Work with high scale retail data sets to derive statistical insights and develop innovative algorithm to productize these insights
- Build out tools and infrastructure for data analysis
- Manage service deployments with docker and Kubernetes

Data Science Researcher, RAEL at UC Berkeley

September 2016 — April 2018

- Participate in SWITCH-USA and SWITCH-WECC projects as data scientist/software engineer role
- Build a capacity expansion model for the electricity sector based on United States
- Preprocess the related data and improving the functionality of site suggestion model
- Work with large volumes of compiled raw data, given by governmental institutions

Military Experience

CBRN Squad Leader (74D), 401st CM CO, United States Army Reserve

July 2020 — Present

- Lead and assist the maintenance of DRSKO system and CBRN equipment
- Provide training advice and supervision regarding CBRN equipment and operations
- Train CBRN platoons on dismounted CBRN operations
- Operate on DRSKO missions as an Initial Entry Team leader
- Responsible for insuring successful accomplishment of CBRN Training which support the unit's training programs and objectives

CBRN Specialist (74D), 308th CM CO, United States Army Reserve

February 2016 — July 2020

- Conduct CBRN reconnaissance and surveillance
- Assist in the establishment of CBRN defense measures
- Provide training advice and supervision regarding CBRN equipment and operations
- Train military and civilian personnel on CBRN response operations
- Operate and maintain CBRN detection and decontamination equipment

Education

M.S. in Engineering and Management, Massachusetts Institute of Technology

August 2023 — Present

B.A. in Computer Science, University of California - Berkeley

August 2014 — December 2016

B.A. in Statistics, University of California - Berkeley

August 2014 — December 2016

Talks

Postgres-powered AI: Running an End-to-End AI Platform with Postgres on Azure, POSETTE 2024

June 2024

Approaching Cluster Multi-tenancy with Ray Job, Ray Summit 2023

August 2022

Improving CI/CD process for Cloud Native Python Applications with PyPI Cloud, The Linux Foundation - Open Source Summit North America 2022

June 2022

Achieving Scalability and Interactivity with Ray Serve, Ray Summit 2021

June 2021

Text Analysis to Understand International Variations in Interpreting Sustainable Development, TextXD at UC Berkeley

December 2018

Publications

Multi-objective Research on Meeting Sustainable Development Goals, American Geophysical Union

December 2020

Co-author with professor Deborah Sunter (Tufts University, Mechanical Engineering) and her team

Quantitative Assessment of International Collaboration on Reaching the United Nations' Sustainable Development Cycle, American Geophysical Union

December 2020

Co-author with professor Deborah Sunter (Tufts University, Mechanical Engineering) and her team

Certifications

Post Graduate Program in Cloud Computing, University of Texas at Austin

September 2022

Certified Kubernetes Administrator, The Linux Foundation

December 2020

Certified Kubernetes Application Developer, The Linux Foundation

December 2020

Languages

Korean

English