

# Keisuke Umezawa

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Director of Engineering at Mercari, Inc. |

Specialized in Machine Learning & Data

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## Profile Summary

Engineering Director with extensive experience in machine learning (ML), data platforms, and back-end system design. Expertise in areas such as ad matching, recommendation systems, financial forecasting, and user moderation. Proven track record in both technical leadership and hands-on ML modeling. Adept at team and project management, driving strategic initiatives, and ensuring operational excellence in high-impact areas like customer support and trust & safety. Passionate about leveraging technology to maximize organizational outcomes.

## Work Experience

**2024.1-**                      **Director of Engineering:** Mercari, Inc, Japan

### Areas

- Search & Discovery (2025/1 -)
- AI/LLM (2025/1 -)
- Data Platform (2024/1 -)
- Customer Service (2024/1 - 2024/12)
- Trust and Safety (2024/1 - 2024/12)

### Responsibilities

- Oversee engineering teams, budget planning, and resource allocation.
- Drive strategic planning for the customer support and trust & safety platforms.
- Ensure scalable and secure data solutions that align with business goals.

**2022.1-2023.12**        **Head of Engineering, Customer Service Platform, Trust & Safety:** Mercari, Inc, Japan

- Oversee engineering teams, budget planning, and resource allocation.
- Drive strategic planning for the customer support and trust & safety platforms.

**2019.12-2023.12    Engineering Manager, Machine Learning:** Mercari, Inc, Japan

- Recommendation
  - Provide personalized components on the home screen
- Customer Support Platform
  - Automatic response to customer contacts by ML
  - Template suggestion to reply in the contact tool
- Trust and Safety
  - Content moderation with item and user behavior information
- Marketing Automation
  - Platform for predicting customer attributes

**2018.3-2019.11    Engineer, Chief Engineering Manager:** AlpacaJapan, Japan

- Leading model development for **AlpacaForecast** (Forex market prediction) using deep learning with data scientists
- Developed trading backtesting engine “**AlpacaDB/backlight**” to standardize evaluation method
- Standardize development process and team management: introduced ticketing system, scrum meeting, 1on1 and guidelines for development and communication

**2017.3-2024.8    Parttime, Chainer Evangelist, Optuna Developer:** Preferred Networks, Japan

- Responsible for increasing people who uses “**Chainer**”
- Implement some features in “**Optuna**” and “**Optuna Dashboard**”

**2016.8-2018.3    Engineer:** Yahoo Japan Corporation, Japan

- Developed inhouse search engines for the ad and media services
  - **developing inhouse search engine for advertisement distribution system** with C++, Java and Python
  - Instructed agile software development such as Scrum
  - Instructed C++ coding in the team
- Led and productized inhouse recommendation engine for the media services
  - Led a data scientist and system engineers to build new deep learning based **recommendation system**
  - Responsible for satisfying requirements, architecture design and team management

**2014.4-2016.8    Quantitative Analyst and Model Developer:** the Bank of Tokyo Mitsubishi UFJ, Japan

## Education

**2012.4-2014.3    MSc, Information Science and Technology;** Graduate School of Information Science and Technology, the University of Tokyo, Japan

- Human motion recognition and robot motion generation by HMM

**2012.5-2012.8    Internship, at Learning Algorithms and Systems Laboratory (LASA);** the Ecole Polytechnique Federale de Lausanne (EPFL), Switzerland

2008.4-2012.3

**BE, Department of Mechano-Informatics;** Faculty of Engineering, the University of Tokyo, Japan

## Technical Experience

### Product Management

**Managed teams using following ideas:**

- Writing technical specs and requirements
- Schedule management
- Agile Methodology (Scrum/Kanban)
- Ticketing tools such as Jira, Github projects

### Programming Languages

**first-lang:** experienced items as follows with C++, python and Javascript/Type-script.

- Object-Oriented Programming
- Design of API
- Multi-thread programming

### System Architecture & Development

Proficient for cloud development.

- Basic experience of **RDS, KVS, Message Queue, Search Engine, Restful API**
- Basic experience of **GitHub, Docker, k8s, ci/cd, GCP/AWS**
- Basic experience of ML libraries such as **PyTorch, scikit-learn, pandas** and etc.

## Publication

- A. L. P. Ureche, K. Umezawa, Y. Nakamura and A. Billard, "Task Parameterization Using Continuous Constraints Extracted From Human Demonstrations," in IEEE Transactions on Robotics, vol. 31, no. 6, pp. 1458-1471, Dec. 2015. [link](#)
- Y. Shido, H. Liu, K. Umezawa, 2022. "Textual Content Moderation in C2C Marketplace." in Proceedings of The Fifth Workshop on e-Commerce and NLP (ECNLP 5), pp. 58–62, Dublin, Ireland. Association for Computational Linguistics. [link](#)

## Extra Section

- Certificates:
  - IPA Database Specialist
- Languages:
  - Japanese (native)
  - English (CEFR - B2)