Keisuke Umezawa

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Director of Engineering at Mercari, Inc. |
Specialized in Machine Learning & Data

Profile Summary

Dynamic Engineering Director with extensive experience in machine learning (ML), data platforms, and backend 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 / Data Platform, Customer Service, Trust and Safety**: Mercari, Inc, Japan

- 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++ cording in the team
- Led and productized inhouse recommendation engine for the media services
  – Leaded 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/Typescript.
	• 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)