

# Keisuke Umezawa

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Machine Learning Engineer / Engineering Manager

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## Profile Summary

Software and machine learning engineer with the experiences in financial modeling, search engine development, recommendation engine and content moderation system development. In most cases, I led teams to accomplish the targets by sharing objectives, requirements and schedules. When assigning tasks to someone, I think that the most important thing is delegating ownership and responsibility to motivate them.

## Work Experience

**2019.12-(Current) Engineering Manager:** Mercari, Inc, Japan

- CRE (Customer Reliability Engineering)
  - Content moderation with item and user behavior information
  - Automatic response to customer inquiries by ML
- CRM (Customer Relationship Management)
  - Platform for predicting customer attributes
- CXI (Customer Experience Improvement)
  - **Visualizing and improving retention rates for each customer experience**

**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-(Current) Chainer Evangelist, Optuna Developer:** Preferred Networks, Japan

- Responsible for increasing people who uses “**Chainer**”
  - Organizing **chug** (Chainer User Group)
  - Holding talks about the deep learning and its framework “**Chainer**”
  - Improving the **documentation** and **tutorials**
  - Held more than 10 hands-ons and meetups

**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

- Developed derivatives pricing model and risk management system with C++

## Education

**2012-2014      MSc, Department of Mechano-Informatics;** 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

**2008-2012      BSc, Department of Mechano-Informatics;** Faculty of Engineering, the University of Tokyo, Japan

## Technical Experience

**Product Management      Managed teams using following ideas:**

- Delegating ownership and responsibility
- 1on1
- Agile Methodology (Scrum/Kanban)
- Ticketing tools s.t. Jira, Github projects

**Programming Languages      first-lang:** experienced items as follows with C++ and python

- Object-Oriented Programming
- Design of API
- Multi-thread programming
- C++ meta programming
- Functional programming

Basic knowledge of **C++**, **Python**, **Java**, **sh/bash**. And a fun of **Rust**.

**System Architecture Development Tools      Basic experience of RDS, KVS, Message Queue, Search Engine, Restful API**  
 Basic experience of **GitHub**, **Docker**, **k8s**, **ci/cd**

## Machine Learning Algorithms    Implementation Experience

- linear regression, logistic regression, k-NN, k-means, Hidden Markov Model
- Deep Learning Application
  - CNN, RNN, word2vec, seq2seq, DCGAN, WaveNet, etc

### Use Experience

- SVM, Ensembler, Logistic Regression, 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](#)

## Extra Section

- Certificates
  - IPA Database Specialist
- Human Languages:
  - Japanese (native speaker)
  - English (business level)