

Keisuke Umezawa

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Software Engineer / Machine Learning Engineer

Profile Summary

Software and machine learning engineer with the experiences in financial modeling, search engine development and recommendation engine 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

2018.3-(Current) **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:** 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)