# Takuya Kitazawa

- M.S. in Information Science and Technology, specialized in recommender systems and scalable machine learning.
- 6+ years of hands-on industry experience as a full-stack software engineer, OSS developer, data scientist, machine learning engineer, and product manager.
- Productizing machine learning and data analytics on Treasure Data Customer Data Platform, an enterprise big data analytics SaaS platform, by not only implementing the system but also translating business needs into technical problems.

## Work

**10/2020 – Present** · **Senior Product Manager**

02/2021 – Present · Treasure Data (Canada), Vancouver, BC, Canada

10/2020 – 02/2021 · Treasure Data, Tokyo, Japan

- Serving a product management role in the digital marketing, data analytics, and machine learning domain. Product features I was in charge of include: out-of-the-box data visualization, A/B testing, and predictive customer scoring.
- Productizing solution templates in an in-house Treasure Boxes ecosystem to accelerate advanced, strategic use of rich customer data. I have also worked closely with the business development team to collaborate with the partners and develop the platform together.

**02/2020 – 09/2020** · **Product Manager**
**04/2019 – 02/2020** · **Staff Engineer**
**07/2018 – 03/2019** · **Senior Engineer**

Arm, Tokyo, Japan

(Spin-off Treasure Data as an independent organization)

As an engineer:

- Evangelized the connection of big data, machine learning, data science, and IoT, both for company's internal and external audiences.
- Worked closely with an internal sales engineering team and served as a data science consultant to accomplish clients' machine learning projects in a wide variety of industries, including retail, gaming, and online media.
- Represented individual contributors in Arm's data business unit, and mapped out granular IoT-data integrated use cases and solution ideas through prototyping and customer-facing work with global teams.
- Led the development of a brand-new Python SDK for an enterprise big data analytics platform, and renovated the surrounding data science ecosystem.

As a product manager:

- Worked with multi-regional cross-functional teams, and continuously delivered marketer-facing features in an enterprise customer data management platform by bridging the communications among internal/external and technical/non-technical stakeholders.
- I was particularly responsible for product development and strategy establishment in the applied machine learning and customer data analytics domain, and we have successfully recognized as "Strong Performer" in The Forrester Wave™: Customer Analytics Technologies, Q3 2020.
- Led a collaborative project with Arm Research, an Arm's internal research-oriented group, and published a novel solution template for data-driven multi-touch attribution.

**02/2017 – 07/2018** · **Data Science Engineer**

Treasure Data, Tokyo, Japan

(Acquired by Arm)

- Regularly contributed to the development of Apache Hivemall, a scalable machine learning library running on Apache Hive and Spark.

📅 Last updated on 2021-06-20

## Contact

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- ⌂ github.com/takuti
- in linkedin.com/in/takuti

## Personal

- 👪 25/02/1993, Nagano, Japan
- ⌂ North Vancouver, BC, Canada
- ♥ Traveling, running, hiking

## Skills

- 🔧 Unix, Linux, Windows, AWS, Docker, Git, MySQL, PostgreSQL, MongoDB, Fluentd, Spark, Hadoop, Hive
- </> Python, Julia, Java, Scala, Ruby, JavaScript (Node.js, React, d3.js, Angular), PHP, MATLAB, Swift, Objective-C, C, C++
- 🈂 Japanese (native), English (IELTS Academic Overall 7.0 in Feb 2020, General Training Overall 7.5 in Feb 2021)

## Publications

Conference Talks

- 🖼 T. Kitazawa. Apache Hivemall Meets PySpark: Scalable Machine Learning with Hive, Spark, and Python. ApacheCon Europe 2019.

- 🖼 T. Kitazawa and M. Yui. What's New and Coming to Apache Hivemall: Building More Flexible Machine Learning Solution for Apache Hive and Spark. ApacheCon North America 2019.

- 🖼 T. Kitazawa. Recommendation.jl: Building Recommender Systems in Julia. JuliaCon 2019.

- 🖼 T. Kitazawa. Apache Hivemall: Query-Based Handy, Scalable Machine Learning on Hive. ODSC Europe 2018.

- 🖼 T. Kitazawa. FluRS: A Library for Streaming Recommendation Algorithms. EuroSciPy 2017.

International Conference, Workshop, and Demo Papers (referred)

- 📄 T. Kitazawa. Zero-Coding UMAP in Marketing: A Scalable Platform for Profiling and Predicting Customer Behavior by Just Clicking on the Screen. Adjunct Publication of the 27th Conference on User Modeling, Adaptation and Personalization (UMAP 2019).

- 📄 T. Kitazawa and M. Yui. Query-Based Simple and Scalable Recommender Systems with Apache Hivemall. Proceedings of the 12th ACM Conference on Recommender Systems (RecSys 2018).

- 📄 T. Kitazawa. Sketching Dynamic User-Item Interactions for Online Item Recommendation. Proceedings of the 2017 Conference on Conference Human Information Interaction and Retrieval (CHIIR 2017).

- 📄 T. Kitazawa. Incremental Factorization Machines for Persistently Cold-starting Online Item Recommendation. The 1st Workshop on Profiling User

- Led the development of out-of-the-box machine learning applications from competitor analysis and requirement gathering to system implementation and customer onboarding.

08/2015 – 06/2016

## Part-time Software Engineer

Rakuten Institute of Technology, Tokyo, Japan

In the research organization, I have worked on the development of recommendation algorithms for an online golf booking service. Based on a previous study, I have conducted further assessments and proposed improvement ideas in terms of both theory and practice.

02/2012 – 02/2013

## Part-time Software Engineer

HANASAKE PICTURES, Fukushima, Japan

Contributed to the development of (1) PHP applications for an avatar-based social networking service, and (2) an iOS application for virtual trial fitting using an image blending algorithm named Poisson Image Blending.

10/2011 – 03/2013

## Research Assistant / Web Developer

The University of Aizu, Fukushima, Japan

Led the development of a Ruby on Rails-based web application "Aizu Weather" for regional weather monitoring, accompanied by interactive geospatial data visualization using d3.js.

# Education

04/2015 – 03/2017

## M.S. in Information Science and Technology

The University of Tokyo, Tokyo, Japan

Thesis: Persistently Cold-Starting Online Item Recommendation for Implicit Feedback Data

Advisor: Dr. Takayasu Matsuo

GPA: 4.0

Activities:

- Served as a student volunteer at RecSys 2016 (Sep 2016)
- Participated in Machine Learning Summer School Kyoto 2015 (Aug 2015)

Internship:

- R&D Intern at Silver Egg Technology (Dec 2016 – Jan 2017)
  - In-depth data analysis on customer's purchase dataset collected from a real-world e-commerce service.
  - Proposing a novel recommendation algorithm, which has been a part of my master's thesis, to achieve higher accuracy of recommendation in the long run.
- Machine Learning Intern at Treasure Data (Aug – Sep 2016)
  - Implementing user-defined functions (UDFs) for state-of-the-art recommendation and anomaly detection techniques on Apache Hivemall.
  - PoC implementation of a next-generation anomaly detection system for multiple system metrics, collected from an enterprise big data management platform.

04/2011 – 03/2015

## B.S. in Computer Science and Engineering

The University of Aizu, Fukushima, Japan

Thesis: User Modeling in Folksonomies: Relational Clustering and Tag Weighting

Advisor: Dr. Masahide Sugiyama

GPA: 3.97

Honors and Awards:

- President's Award — Summa Cum Laude equivalent (2015)
- Dean's List of Distinguished Students (2012 – 2015)
- Best Paper Prize, IEEE Sendai Section Student Awards (2014)
- Innovative Award, The Tokyo American Center and Keio SFC Entrepreneurship Seminar and Business Plan Competition (2012)

Preferences for Dynamic Online and Real-Time Recommendations (RecProfile), in conjunction with RecSys 2016.

T. Kitazawa and M. Sugiyama. User Modeling in Folksonomies: Relational Clustering and Tag Weighting. Proceedings of the 5th International Conference on Web Intelligence, Mining and Semantics (WIMS 2015).

Japanese Domestic Conference Papers (non-referred)

T. Kitazawa. Incremental Item Recommendation Using a SVD-based Streaming Anomaly Detection Framework (in Japanese). Numerical Analysis Symposium 2016 (NAS 2016), June 2016.

T. Kitazawa. Incremental Factorization Machines for Item Recommendation in Data Streams. The 30th Annual Conference of the Japanese Society for Artificial Intelligence (JSAI 2016), IC2-5, June 2016.

T. Kitazawa and T. Matsuo. Incremental Approaches for Matrix Approximation: Performance Evaluations and Their Possible Applications (in Japanese). The Japanese Society for Artificial Intelligence SIG-FPAI-98, Aug 2015.

T. Kitazawa and M. Sugiyama. User Modeling through Relational Clustering on Folksonomy (in Japanese). The 77th National Convention of Information Processing Society of Japan (IPSJ 2015), 3N09, Mar 2015.

T. Kitazawa and M. Sugiyama. Relational Clustering in Social Bookmark. Tohoku-Section Joint Convention of Institutes of Electrical and Information Engineering, 2A05, Aug 2014. IEEE Sendai Section Student Awards: The Best Paper Prize

## Courses and Certifications

- Driving business towards the Sustainable Development Goals, Erasmus University Rotterdam, Coursera, Apr 2021.
- Global Environmental Management, Technical University of Denmark, Coursera, Apr 2021.
- Renewable Energy and Green Building Entrepreneurship (with honors), Duke University, Coursera, Apr 2021.
- Blockchain Specialization, University at Buffalo, Coursera, Apr 2021.
- Supply Chain Analytics, Rutgers Business School, Coursera, Apr 2021.
- Supply Chain Management Specialization, Rutgers Business School, Coursera, Apr 2021.
- UI / UX Specialization, California Institute of the Arts, Coursera, Aug 2020.
- Finance for Non-Finance Professionals, Rice University, Coursera, May 2020.
- Introduction to User Experience Design, Georgia Institute of Technology, Coursera, May 2020.
- Functional Programming in Scala Specialization, École

Activities:

- Served as a teaching assistant in a Numerical Analysis course, and thought Java coding of numerical methods to 20+ undergraduates (Fall 2014)
- Participated in Security and Programming Camp 2011 to deepen knowledge in web security (Aug 2011)

Polytechnique Fédérale de Lausanne, Coursera, May 2020.

✳ Applying Machine Learning to your Data with GCP, Google, Coursera, Sep 2018.

✳ Introduction to Recommender Systems, University of Minnesota, Coursera, Oct 2016.

✳ Machine Learning, Stanford University, Coursera, June 2014.

✳ Applied Information Technology Engineer Examination, Information-technology Promotion Agency (IPA), Japan. Passed in 2010, with a pass rate of 20.3% (8,592 out of 42,338).