

SHINICHI TAKAYANAGI

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SUMMARY OF QUALIFICATIONS

- Received the Ph.D. degree in statistical science from The Graduate University for Advanced Studies
- 7+ years of experience as a Data Scientist/Machine Learning Engineer/Data Engineer
- 10+ years of experience as a Software Engineer skilled in data/mathematical analysis systems
- 6+ years of experience as a Financial Engineer skilled in modeling financial models with front desks
- Experience in implementing algorithms for simulation and data science with Python/Scala/R/C++
- Experience in data science for web services, online Ads, B2B marketing, and financial products
- Able to work individually or in a team, possess excellent quantitative analytical and problem-solving skills

CAREER EXPERIENCE

March 2020 – present Uzabase, Inc. (FORCAS, Inc. before the acquisition)

Position: Applied Data Scientist

- Produce and manage company recommendation engine for ABM (account-based marketing) system using a machine learning algorithm (GBT, LR, Naive Bayes, etc)
- Develop and manage large size crawler to collect company website data using AWS Batch, AWS Lambda, Amazon S3 Batch Operations
- Designing and building the entire search engine system used for B2B marketing minor word search on the company website using NLP, FastAPI, RDB, and Elasticsearch.
- Talk with stakeholders, including customers, deeply to understand their desire for our product

Technical Environment: Python, SQL, R, AWS, GitHub

November 2017 – February 2020 LINE Corporation.

Position: B2B Data Engineering & Data Science Manager

- Focusing on B2B business (LINE Ads Platform etc.) and data projects as a 5 team members manager
- Make an entire design for fraud detection, KPI prediction, and anomaly detection system on Ads data
 - Use OSS based model at first and develop an in-house model for rapid PDCA cycle
- Deep dive data science for LINE Ads platform on a bid(ad auction)-basis
 - A/B tests related to the improvement of Ads unit price (eCPM) and the number of impressions
 - Achieve several hundred million JPY sales increasing per year
- Design and reporting statistical test for achieving valid A/B tests and deciding the best solutions
- Manage and design ETL process running on-premise servers using Apache Spark/Scala with CI/CD (Drone CI)
- Made a poster presentation on useR! 2018 to show how we use R in LINE Corp.

<https://www.r-project.org/conferences/useR-2018/poster/index.html>

Technical Environment: Python, Scala, SQL, R, Private Cloud, GitHub, Drone CI, Tableau

November 2016 – present HOXO-M Inc.

Position: Executive Vice President

- Data analysis consulting and company management
- Data science consultation for many industries (automobile, healthcare, fintech, online advertisement, consumer products, etc)
- Translation, writing, and supervision for several famous date-related books written in Japanese

December 2014 – October 2017 Recruit Communications Co., Ltd.

Position: Machine Learning Engineer

- Planning and implementing data science, and developing systems using a machine learning algorithm
 - Hair salon reservation day prediction, Travel destination prediction, etc.
 - Achieve about 1 billion JPY profit impact a year through the improvement of these services
- Data science for a recommendation, demand forecast, hypothesis verification for Recruit's services
- System development for our data science infrastructure
- Tackled basic verification of Quantum computer (D-Wave) and application in Web service
 - Paper: Application of Ising Machines and a Software Development for Ising Machines
Kotaro Tanahashi, Shinichi Takayanagi, Tomomitsu Motohashi, Shu Tanaka
Journal of the Physical Society of Japan, 88, 061010 (2019) 10.7566/JPSJ.88.061010

Technical Environment: R, Python, SQL, Scala, AWS, GCP, GitHub, Drone CI, Ansible

October 2008 - November 2014 Mizuho-DL Financial Technology Co., Ltd.

Position: Financial Engineer

- Analyzed massive market data using a variety of types of statistical hypothesis testing, VAR, VECM, Kalman/particle filtering, and developed trading model, and system of bonds.
- Analyzed the bond market data and developed a bond portfolio optimization tool for fund managers.
- Analyzed hedge fund data to build a new hedge fund index and launched it.
- Worked in close contact with other departments and clients to make good software and service.

Technical Environment: C++, R, F#, python, VBA (Access, Excel)

April 2006 - September 2008 Foundation for Promotion of Material Science and Technology of Japan

Position: Software Engineer

- Developed an effective software to analyze 3D Image processing, classify and reduce the noise of spectrum from analysis equipment such as X-ray photoelectron spectrometer.
- Worked in close contact with other departments to make good software.

Technical Environment: C++, MATLAB, SQL, Oracle DB, UML

EDUCATION

Doctor of Philosophy (Statistical Science): The Graduate University for Advanced Studies (2020)

Master's degree in physics: Hokkaido University (2006)

Bachelor's degree in physics: Hokkaido University (2004)

PUBLICATIONS

- Takayanagi, S., & Iba, Y. (2018). Backward Simulation of Stochastic Process Using a Time Reverse Monte Carlo Method. Journal of the Physical Society of Japan, 87(12), 124003.
 - Tanahashi, K., Takayanagi, S., Motohashi, T., & Tanaka, S. (2019). Application of Ising machines and a software development for Ising machines. Journal of the Physical Society of Japan, 88(6), 061010.
- See Google Scholar for more detail: <https://scholar.google.co.jp/citations?user=uvy3cCgAAAAJ>

OTHER

- Presentation: <https://speakerdeck.com/stakaya> (data science/machine learning paper reading mainly)
- Software Design & Development Engineer (December 2006)
- Passed Level II examination of CMA program
- English level: Business (TOEIC score 910 (May 2012)).
- Book publication (Japanese)
 - Introduction to Financial data analysis by R, Kyoritsu Shuppan Co., Ltd. (ISBN 978-4320123717)
 - Advanced R, Kyoritsu Shuppan Co., Ltd. (Translation, ISBN 978-4-320-12393-9)
 - R for Everyone, Mynavi Corporation (Translation, ISBN 978-4839955212)