

email: reika.k.fujimura@gmail.com  
phone: 647-867-8932

**Reika Fujimura**

Linkedin: [reika-fujimura](#)  
Website: [reikafujimura.com](#)

**Programming:** Python, SQL, Docker, shell, Terraform

**Cloud Tools:** GCP, AWS, Airflow

**Databases:** BigTable, BigQuery, SQL, NoSQL

**Analysis Tools:** Adobe Analytics, Amplitude, Tableau

**ML:** Tensorflow, torch, sklearn, XGBoost, LightGBM, collaborative filtering

**Infrastructure:** QA testing, CI/CD, REST API

**Mathematics:** A/B Testing, optimization

## WORK EXPERIENCE

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### Senior Developer, Machine Learning | CBC

July 2022 - present

- Built a podcast recommendation system on the CBC Listen APP front page using collaborative filtering model, achieving 63% lift in click through rate.
- Delivered a similar podcast recommendation system for the new autoplay feature across the CBC Listen services, achieving 10% increase in daily stream events.
- Developed a homepage recommendation system as a hybrid lineup curation system of trending and personalized articles, which has been successfully deployed in homepage.
- Collaborated with a fellow developer to build an automated lineup curation system on news index pages, which has been tested and released on 38 index pages and significantly reduced the maintenance costs.
- Led the team project of ML platform migration, designing the solution architecture for the ML pipeline and defining the phase approach and detailed implementations.
- Wrote a [tech blog post](#) about ensuring diversity in recommended content.

### Data Scientist | Recruit Co.

April 2021- January 2022

- Developed a restaurant recommendation model, evaluating multiple models like Linear Regression, Random Forest and LightGBM offline and bridged the model to APIs using Python and Golang.
- Conducted A/B testing to determine the impact of the recommendation model on conversion rates, demonstrating a 1.5% increase or 1 Million CAD per year.
- Formulated the delivery planning problem in our business into a vehicle routing problem and solved the combinatorial optimization problem using PuLP.
- Leveraged customer data stored in BigQuery to perform statistical analyses that informed business solutions.
- Worked closely with designers, front end engineers, and marketing experts to deploy technical solutions to clients.

## OTHER WORK EXPERIENCE

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### Data Scientist (contract, side project) | Fvital Co.

Jan 2022 - present

- Developed a model to analyze video recordings of neonatal resuscitation to classify scenes and generate behavioral records using object detection, human tracking, and recurrent neural network.
- Built a system to estimate vital data such as breathing rate, heart rate and oxygen saturation of neonates from video recordings.
- Developing a backend system to integrate the models to the frontend application.

### Research Intern | QunaSys

May 2020-March 2021

- Built a module in Qulacs (library for quantum circuits simulation) for calculating the important functions (Green's functions) for the quantum chemical simulation, inspired by academic research papers.
- Wrote company [blog posts](#) about quantum chemistry and machine learning.

### Freelance work and Internships in startup companies

- Lead Data Scientist, Colere Inc. - May 2022 to Jan 2023
- Software Engineer, Priceless Inc. - August 2017 to April 2018
- Front-end Developer, Aidemy Inc. - January 2016 to July 2017

## EDUCATION

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- M. S. in Applied Physics, The University of Tokyo (Tokyo, Japan) - April 2019 to March 2021
  - B. S. in Applied Physics, The University of Tokyo (Tokyo, Japan) - April 2015 to March 2019