

# Ryotaro Kimura

@ m.ryoppippi@gmail.com ryoppippi.com @ryoppippi Ryotaro Kimura

Engineer specialising in Human Computer Interaction, Intelligent Machines and Web Development

## Experience

### Freelance Engineer

*Self-Employed*

May 2023 — Present Remote

- Teaching and consulting machine learning, web development, and basic Python programming
- Involved in the development of product management systems using TypeScript, React, StoryBook and TailwindCSS running on AWS
- Developed data-visualization tools using D3.js, SvelteKit, PostgreSQL, and Cloudflare Workers

### Cloudflare Engineer

*NOT A HOTEL Inc.*

Jan 2024 — Mar 2024 Japan | Remote

- Developed AI assistant for customer services using Cloudflare Workers, GCP, OpenAI API and React

### Full-Stack Engineer

*Eightis Inc.*

July 2022 — Aug 2023 Japan | Remote

- Launched and Developed Shintai: a web and iOS based platform for body-alignment training
  - Web: SvelteKit, Cloudflare Workers and PostgreSQL
  - iOS app: Swift, SwiftUI and Firebase authentication
  - Machine learning: fine-tuning of pose detection model and run on CoreML
- Collaboration work with athletes and trainers

### Co-Founder and Chief Research Officer

*QuantumCore Inc.*

Oct 2018 — June 2023 Tokyo, Japan | Remote

- Worked on Qore: the core-algorithms to enhance Reservoir Computing(RC)
- 2018 - 2019: Implement RC and data preprocessing algorithms originally written in Python to embed devices using C/C++
  - Achieved **120x faster training time** compared to LSTM and enabled deployment on embedded devices, including Raspberry Pi and M5Stack.
- 2018 - 2023: Created and presented a dozens of PoCs using RC, mainly in the field of *time-series*, *audio processing*, and *image processing*
- 2020 - 2023: Launched, developed and operated Sloos: a minute-taking app for remote workers
  - Applied speaker-detection algorithm with RC to automatically generate meeting minutes
  - My *first experience* of developing a full-stack application. Developed in a month with learning and launched the app on May 2020.

- Developed both backend and web frontend using Flask, Angular, MySQL and Azure App Directory
- Achieved **over 1,000 installations** of the note-taking app, sloos, in companies across Japan.
- Achieved Microsoft for Startups partnership
- 2021 - Qore Cloud: a web-based no-code tool for fine-tuning RC models

## Education

### Master of Applied Science

*University of Tokyo*

Apr 2019 — Mar 2022 Tokyo, Japan

Applied Computer Science

### Bachelor of Arts

*International Christian University*

Apr 2015 — May 2019 Tokyo, Japan

Information Science Major, Economics Minor

Dean's List (GPA: 3.86/4)

### Exchange Program

*The University of Edinburgh*

Sep 2017 — May 2018 Edinburgh, UK

School of Informatics

## Publications

- *Artificial Neural Networks for Realized Volatility Prediction in Cryptocurrency Time Series* ISSN 2019: Advances in Neural Networks 2019 (Full papers)
- *An Intuitive Interface for Digital Synthesizer by Pseudo-intention Learning* Audio Mostly 2019 (Full papers)
- *prometheus: A mobile telepresence system connecting the 1st person and 3rd person perspectives continuously* SIGGRAPH Asia 2022 (Poster)

## Natural Languages

English (IELTS 6.5) / Japanese (Native)

## Speaking

- VimConf 2024
- neovimconf.live 2024
- TEDxYouth@Tokyo 2013

## Tech Community Activities

*vim-jp / Svelte Japan*

## Other Information

### Visa Status

Already have a work permission without restrictions in UK (**spouse visa**)