Ryotaro Kimura

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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
  - ‣ Guided over **40 students**
- Built scalable product management systems using TypeScript, React, Storybook, and TailwindCSS, hosted on AWS
- Engineered interactive data-visualisation tools using D3.js, SvelteKit, PostgreSQL

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 embedded 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

- ‣ Built both backend and web frontend using Flask, Angular, MySQL and Azure App Directory
- ‣ Reached **over 1,000 installations** in companies across Japan
- ‣ Won 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* ISNN 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)

Talks

- 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**)