

Ryuki Kobayashi

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EDUCATION

Texas A&M University

Master of Computer Science

- Graduation anticipated in May 2022
- Relevant Coursework: Software Engineering; Analysis of Algorithms; Artificial Intelligence

University of Tokyo

Bachelor of Science, Earth and Planetary Science (GPA: 3.20/4.00)

- Scholarship recipient (Students and Researchers Exchange Program in Sciences)

College Station, TX

Aug 2020–present

Tokyo, Japan

Apr 2010–Mar 2015

TECHNICAL SKILLS

Programming Languages: Proficient in C#, Python, VBA, HTML/CSS; familiar with C++, C, JavaScript, Ruby

Tools: Unity, OpenCV, Microsoft Azure, UNet, Git, TensorFlow, React.js, Ruby on Rails, AWS, Unix

PROJECTS

PhD Admission System for Texas A&M University

Aug 2020–Dec 2020

- developing and deploying a **RESTful** web application with **React.js** frontend and **Express** backend to allow faculties to record, modify, and review applicants' information on **Google Sheet**
- running **BDD** with **Capybara** over 100-plus tests, using the **Cucumber** tool to turn these stories into executable acceptance tests, and running the tests against the **SaaS** app
- automating the process of downloading applicants' files on the web and extracting data using regular expressions
- delivering log-in service with **Firebase authentication** to enhance data security

PROFESSIONAL EXPERIENCE

ILLUSION

Game studio focused on VR/AR software development, with annual sales of \$8 million

Software Engineer (full time)

- leader of five-member team
- developed the **VR Kanojo** series as a **Unity** engineer; the game generated more than \$4 million in revenue
 - implemented a localization system utilizing **Google Sheet** and **CSV files**; utilized **AssetBundle** to save memory
 - constructed an object inertia system in **C#** to help in-game character to predict ball trajectory; utilized **linear algebra**
- led and released **TsunTsun VR** project on Steam; transmitted haptic feedback from virtual character via Bluetooth operating with bHaptics; more than 5,000 downloads
 - deployed multiplayer function via wireless **LAN** using **UNet**

GOKURAKU INC (self-employed)

Feb 2019–Apr 2019

- designed a **real-time virtual reality viewer** for *360* movie for dual-fisheye camera with **Unity**
- mapped each pixel of image captured by the camera into dynamically created mesh in **C#**, rendered in real time
- used a video capture board to promote compatibility with **THETA S** by **WebCamTexture**

TOKYO BROADCASTING SYSTEM TELEVISION, INC (self-employed)

May 2018

- created **virtual reality training simulator** for *Sasuke* (TV sport show in Japan)
- developed for **HTC Vive** with **Unity** for *Sasuke* professional players, deploying hand tracking with **Leap Motion**
- implemented also for standalone devices (**Mirage Solo**, **VIVE Focus**)

VALQUA LTD

Software Engineer in Overseas Business Improvement Division (full time)

Tokyo, Japan

Apr 2016–July 2017

- analyzed factory workers' movement lane and cut labor costs by 40% utilizing **Python**; trained 100 employees

AWARDS

Tsukumo award in Looking Glass Hackathon, sponsored by Unity Technologies

Apr 2019

- developed a holographic viewer for enjoying Japan's four beautiful seasons; released in Looking Glass Library
 - operating with **Xperia TOUCH** to enhance interactive experience

GREE award in Lunar Sports VR Hackathon, sponsored by JAXA

May 2018

- developed a VR training simulator of Kendama (Japanese traditional toy) in a low gravity environment
 - utilized a **particle-based physics** engine to create realistic ropes
 - constructed a gravity model to change the behavior of the Kendama ball