# Ricky (Ryuki) Kobayashi

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### **PROFESSIONAL EXPERIENCE**

#### Software Engineer III | Google, Durham, NC

#### • Developing libraries and writing **unit tests** in **Python** to deploy new dataplane for **Cloud Interconnect**

Automating cluster turnup process and health check in Google Cloud datacenter for valued customers

#### Software Engineer Intern | Dell Technologies, Chesterbrook, PA

- Developed a portable runtime test framework in **Python** and **Java** for Windows, Linux and Boomi Atom Clouds
- Redesigned golden file comparison; placed files on Amazon S3 so that runtime harness can easily access
- Analyzed customers' API gateway access data: reduced render time and improved memory usage by 50% by optimizing log parser code

#### Software Engineer | Illusion, Tokyo, Japan

- Directed a five-member team and launched the VR Kanojo series as a Unity engineer; ranked in 10 top-selling VR games in the world for 4 years in a row with 300,000+ downloads and achieved \$15 million of revenue
- Implemented a localization system with Google Sheet; utilized AssetBundle to save memory
- Constructed an object inertia system in C# to help the in-game character predict ball trajectory utilizing linear algebra
- Released the **TsunTsun VR** project on Steam (5.000+ downloads); transmitted haptic feedback from virtual characters via Bluetooth and bHaptics; deployed a multiplayer function via wireless LAN using UNet

#### Software Engineer | Gokuraku Inc., Tokyo, Japan

- Designed a real-time VR viewer for a 360° movie shot with a dual-fisheye camera using Unity
- Mapped each pixel of a camera-captured image into a dynamically created mesh in C#, rendered in real-time

#### PROJECTS

#### **Nursing Virtual Reality Training Program**

- Built VR application with Unity to support practitioner's overall performance in SBIRT assessment
- Enabled transcript system with Google Cloud Speech Recognition to record conversation and
- Pre-trained ML model in Nyckel to implement automatic response system by sending HTTP requests to cloud

#### **Aggie SAMA Website**

- Built web application with Node.js + Express, HTML, CSS, and JavaScript empowering a student organization to manage day-to-day operations; utilizing **Bootstrap** to ensure **responsive** design
- Constructed backend system utilizing Node.js and MSSQL to efficiently store and serve dynamic content

#### **EDUCATION**

#### Texas A&M University, College Station, TX

Master of Computer Science (GPA: 3.7/4.0)

• Relevant coursework: Distributed Systems, Cloud Computing, Graph Mining, Software Engineering, Analysis of Algorithms, Problem Solving Programming Strategies, Artificial Intelligence, Machine Learning, Deep Learning

#### University of Tokyo, Tokyo, Japan

Bachelor of Science in Earth and Planetary Science

# **TECHNICAL SKILLS**

Programming languages: Proficient in Python, C#, JavaScript, Java, SQL; familiar with C, C++, Julia Tools: Unity, Git, HTML/CSS, Bootstrap, Node.js, React.js, AWS, S3, Boomi, Docker, Windows, Linux, Jira

## **ACTIVITIES / ACHIEVEMENTS**

#### **Commitment to NetworkX library (Python package for network analysis)** Dec 2021

• Improved the performance by 20% by introducing double-ended queue in shortest-path betweenness algorithm

ICPC (Int'l Collegiate Programming Contest) South central USA regional round May 2018

# GREE award: Lunar Sports VR Hackathon, sponsored by JAXA

• Engineered a VR training simulator for Kendama (a traditional Japanese skill toy) in a simulated gravity environment with Unity and C#; utilized a particle-based physics engine to create realistic Kendama ropes

Aug 2021–Jan 2022

#### Jan 2021–Sep 2021

Jul 2022–present

May 2021-Aug 2021

Aug 2017–Aug 2020

Feb 2017–Jul 2017

# Aug 2020–May 2022

## Apr 2010–Mar 2015

Mar 2021