

Ryuki Kobayashi

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PROFESSIONAL EXPERIENCE

Software Engineer | Dell Technologies, Chesterbrook, PA

May 2021–Aug 2021

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

Software Engineer | Illusion, Tokyo, Japan

Aug 2017–Aug 2020

- 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

Feb 2017–Jul 2017

- 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

Aug 2021–Jan 2022

- 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
- Implemented automatic response system; turned user's voice into text, sent HTTP request to retrieve best matching label from pre-trained model in **Nyckel** (ML platform) and returned appropriate response

Aggie SAMA Website

Jan 2021–Sep 2021

- 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 previously managed through code

EDUCATION

Texas A&M University, College Station, TX

Aug 2020–present

Master of Computer Science (GPA: 3.8/4.0), expected graduation: May 2022

- Relevant coursework: Graph Mining, Software Engineering, Analysis of Algorithms, Artificial Intelligence, Machine Learning, Deep Learning

University of Tokyo, Tokyo, Japan

Apr 2010–Mar 2015

Bachelor of Science in Earth and Planetary Science

TECHNICAL SKILLS

Programming languages: Proficient in Python, C#, JavaScript; familiar with Java, C, C++, SQL, Julia

Tools: Git, HTML/CSS, Bootstrap, Node.js, React.js, AWS, S3, Boomi, Docker, Windows, Linux, Jira, Unity

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 (Competitive Programming Contest) South Central USA Regional Round

Mar 2021

GREE award: Lunar Sports VR Hackathon, sponsored by JAXA

May 2018

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