Ryuki Kobayashi

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EDUCATION

Texas A&M University, College Station, TX ***Aug 2020–present***

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

- Relevant coursework: Software Engineering, Analysis of Algorithms, Artificial Intelligence, Machine Learning
- Member of engineering honor society Tau Beta Pi

University of Tokyo, Tokyo, Japan ***Apr 2010–Mar 2015***

Bachelor of Science in Earth and Planetary Science (GPA: 3.2/4.0)

- Recipient of a Students and Researchers Exchange Program in Sciences scholarship

TECHNICAL SKILLS

Programming languages: Proficient in Python, C#, JavaScript, HTML/CSS; familiar with Java, C, SQL

Tools: Git, Node.js, React.js, Ruby on Rails, AWS, Postman, Bootstrap, MSSQL, Linux, Object-Oriented Design

PROJECTS

Aggie SAMA Website ***Jan 2021–Sep 2021***

- Developing a web application for a student organization with **Node.js** and the **Express** framework
- Utilized **HTML/CSS** and **Bootstrap** to ensure a **responsive** design
- Storing all relevant application information on an **MSSQL** database server and displaying it with **EJS**

Texas A&M University PhD Admission System ***Aug 2020–Dec 2020***

- Developed and deployed a **RESTful** web application with a **React.js** frontend and **Express** backend to allow faculties to record, modify, and review applicants' information on **Google Sheet**
- Ran 100+ **BDD** tests with **Capybara**, using the **Cucumber** tool to turn these stories into executable acceptance tests; ran these tests against the **SaaS** app
- Automated the process of downloading applicants' files on the web and extracting data using **regular expressions**

PROFESSIONAL EXPERIENCE

Software Engineer (internship) | Dell Technologies, Chesterbrook, PA ***May 2021–Aug 2021***

- Writing and improving a **portable runtime test framework** (written in **Python**) for use on multiple platforms
- Running **regression tests** on **Docker** as part of a team's **CI/CD** pipeline for test automation
- Analyzing customers' API gateway access data (HTTP status and response time) with **pandas DataFrame**; optimized log parser code with **Dask** and modified the **chunksize** parameter, reducing execution time by half

Software Engineer | Illusion, Tokyo, Japan ***Aug 2017–Aug 2020***

- Led a five-member team at a game studio focused on VR software development with annual sales of $8 million
- Developed the **VR Kanojo** series (ranked in 10 top-selling VR games for **3 years in a row**) as a **Unity** engineer; implemented a localization system utilizing **Google Sheet** and **CSV files**; utilized **AssetBundle** to save memory; constructed an object inertia system in **C#** to help the in-game character predict ball trajectory; utilized **linear algebra**
- Led and released the **TsunTsun VR** project on Steam (5000+ downloads); transmitted haptic feedback from virtual characters via **Bluetooth** and bHaptics; deployed a **multiplayer** function via wireless **LAN** using **UNet**

Software Engineer (self-employed) | Gokuraku, Inc., Tokyo, Japan ***Feb 2019–Apr 2019***

- 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
- Used a video capture board to promote compatibility with **THETA S** using **WebCamTexture** scripting API

AWARDS

Tsukumo Award: **Looking Glass Hackathon, sponsored by Unity Technologies** ***Apr 2019***

- Developed a holographic viewer for users to enjoy Japan's four seasons (released via the Looking Glass Library and operated with the **Sony Xperia TOUCH** for an enhanced interactive experience)

GREE award: **Lunar Sports VR Hackathon, sponsored by JAXA** ***May 2018***

- Developed 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
- Constructed a gravity model to change the behavior of the Kendama ball