

# Kenta Yoshii

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## Education

### Brown University

Providence, Rhode Island

PROSPECTIVE B.A. DEGREE IN COMPUTER SCIENCE AND EAST ASIAN STUDIES

Aug, 2020 - Exp. Mar, 2024

- Sc.B. Computer Science
- Relevant courses: Discrete Mathematics, Introduction to Software Programming, Introduction to Computer Systems, Machine Learning, Computer Vision, Data Science, Deep Learning-grad level, Computer Networks, Programming Languages, Multi-processor Synchronization, Software Security, Operating Systems, Distributed Systems, Applied Cryptography

## Work Experience

### Hennge

Tokyo, Japan

SOFTWARE ENGINEER INTERN

May 2023 - June 2023

- Implemented real-time and scalable messaging cloud applications to be used in internal communication tool
- Developed using SaaS, SSO, PWA and DevOps pipeline

### Plaid, Inc

Tokyo, Japan

SOFTWARE ENGINEER INTERN

Aug 2022 - Aug 2022

- Implemented user settings by reconstructing system logic and models using Node.js and MongoDB
- Verified new releases by developing and running E2E tests using Chai.js and Selenium WebDriver

### Sony Interactive Entertainment

Tokyo, Japan

SOFTWARE ENGINEER INTERN

May 2022 - Aug 2022

- Implemented working prototype of new messaging feature to be added to the PlayStation Network using MERN stack
- Worked in an agile scrum team of 6 to define scope of feature, design mockups, and implement both the interface and the backend.

### Teaching Assistant

Providence, Rhode Island

TEACHING ASSISTANT

Aug 2021 - PRESENT

- Teaching Assistant for introductory Japanese language class (JAPN0100 and JAPN0200)
- Teaching Assistant for Data Structures and Algorithms (CS0200)
- Teaching Assistant for Computer Networks(CS1680)

## Projects

### IP/TCP

Providence, Rhode Island

VIRTUAL IP/TCP NETWORK

Golang

- Built fully functioning **Virtual IP network** by using UDP to simulate a link layer, IP forwarding, and dynamic routing.
- Implemented **Traceroute** and **Routing Aggregation** for scaling
- Built fully functioning **TCP layer** on top of the said IP implementation
- Achieved **3.94MB/s** throughput with **tahoe** congestion control algorithm

### Weenix

Providence, Rhode Island

WEENIX OPERATING SYSTEM

C

- Weenix is a simple Operating System which is a miniature of Linux
- Built an OS kernel in C with a **scheduler**, **TTY driver**, **file system (S5FS)**, and **virtual memory**

### MoDiST

Providence, Rhode Island

MODULAR DISTRIBUTED SYSTEMS

Golang, gRPC

- Built a distributed Key-Value store with various distributed systems feature
- Features included **leaderless replication**, **conflict resolution**, **sharding**, **Tapestry routing**, and **Raft consensus algorithm**

## Skills

### Programming

Java, Go, Python, C, CSS, HTML, JavaScript/TypeScript, React, C++

### Tools

Git, Matlab, Mathematica, Shell, MongoDB, MySQL, Linux/Windows