# Yoshiki Fujiwara

Full Stack Engineer with Dev Lead experience at Microsoft.

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#### TECHNICAL SKILLS

- Language: Python, C#, C++, C, TypeScript, JavaScript, SQL, HTML, CSS, OCaml, Assembly, Verilog
- PyTorch, FastAPI, Web Components, NextJS, Node, React, Pandas, UnitTest, NUnit, Jest, Playwright
- Basic Azure; Speech/OpenAI/ContainerApps/Functions/VM/SQL/CosmosDB, CI/CD, Git, Docker, Flutter, Vivado

#### **EXPERIENCE**

## Software Engineer 2 at Microsoft

August 2021 - Present, Full-time, Tokyo, Japan

- Bing: Ads Revenue Improvement
  - \* Led a team on revenue improvement initiatives to implement new ads annotations, increasing revenue. Leveraged generative AI and web scraped data to create and integrate new annotations into Bing Ads, enhancing the overall user experience. Employed a Distributed System Backend with C#, Python, SQL, and a KV Store for development.
  - \* Created and maintained a new coexistence scenario for 1st party ads alongside 3rd party ads, collaborating with a cross-org team. Implemented a robust backend using a Distributed System Backend with C#, and created a daily updated machine learning pipeline with Python and SQL.
- Copilot: Volume Improvement
  - \* Led a cross-org team for a new 2-3D model based interactive character experiences, resulting in increased engagement.
  - \* Implemented a voice system requiring deep knowledge of Asynchronous Programming and Azure Speech Service.
  - \* Developed and refined character personalities through advanced **prompt engineering** and **fine-tuning** techniques for the **Azure OpenAI model**, ensuring consistent and engaging interactions.
  - \* Designed and implemented character UIs with 2D-3D models, leveraging Web Components and React with TypeScript.
- Microsoft News: Volume Improvement
  - \* Developed and implemented cards on the Edge new tab page to enhance Microsoft News' daily active users. Utilized **Web Components** and **TypeScript** for frontend development, and **C#** and a **KV Store** for backend services.
  - \* Integrated user pathways within Microsoft Edge to direct traffic to Microsoft News, leveraging C++.

## Research Assistant at the University of Tokyo

October 2018 - October 2021, Paid Part-time, Tokyo, Japan

- Deep Neural Network Acceleration
  - \* Conducted research on Deep Neural Network accelerations, resulting in a paper accepted at a **top-tier conference**.
  - \* Developed and evaluated models using **PyTorch**, created simulators in **C++**, and designed accelerators with **Verilog**.
- Cyber Security System
  - \* Conducted research on cyber security system, resulting in a paper with Best Paper Awards.
  - \* Developed and managed virtualized networking systems using **Python** for infrastructure management and evaluation.
  - \* Established and led a course on various cyber attacks and their defense mechanisms. Organized and facilitated a cybersecurity event focused on control systems, attended by **35 government and industry professionals** from the Indo-Pacific region.

## **EDUCATION**

The University of Tokyo

April 2021 - March 2023, Tokyo, Japan

Master in Computer Science, GPA: 4.0

The University of Tokyo

April 2017 - March 2021, Tokyo, Japan

Bachelor in Computer Science, GPA: 3.9

# **NOTABLE PUBLICATIONS**

- "ASBNN: Acceleration of Bayesian Convolutional Neural Networks by Algorithm-hardware Co-design" Link Full paper accepted in Application-specific Systems, Architectures and Processors 2021, which is one of the top conferences in the field of computer sciences.
- Efficient Incident Response System on Shared Cyber Threat Information Using SDN and STIX <u>Link</u> **Full paper accepted** in IEEE International Conference on Computing 2021. This paper received **Best Paper Awards**.

## **PROJECTS**

My motto is "learn to code," which has enabled me to become a full stack engineer. Here are part of projects I've worked on and some of others are uploaded in my <u>GitHub</u>.
Deep Learning Framework with Quantization Functionality, Open Sourced RISC-V Core, iOS/Android Gaming App