

Yuka Takahashi

<https://yamaguchi1024.github.io/>

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EDUCATION

- **The University of Tokyo** Tokyo, Japan
Bachelor of Science in Information Science. Major GPA: 3.90/4.0. April. 2015 – present
Advisor: Takeo Igarashi
Graduation thesis: "PaintersView: Automatic Suggestion of Optimal Viewpoints for 3D Texture Painting"

SELECTED PUBLICATIONS AND TALKS

- **Migrating large codebases to C++ Modules: Yuka Takahashi, Oksana Shadura, Vassil Vassilev.**
In *ACAT 2019* (Oral).
- **Stitch: An Interactive Design System for Hand-Sewn Embroidery: Yuka Takahashi, Tsukasa Fukusato.**
In *ACM SIGGRAPH 2018 Posters*.
ACM SIGGRAPH Student Research Competition 3rd place.
- **Optimizing Frameworks' Performance Using C++ Modules-Aware ROOT: Yuka Takahashi, Vasil Georgiev Vasilev, Raphael Iseemann.**
In *23rd International Conference on Computing in High Energy and Nuclear Physics (CHEP) 2018 Posters*.
- **A Better Shell Command-line Autocompletion for Clang: Yuka Takahashi.**
In *LLVM developer's meeting 2017* (Lightning talk).

EXPERIENCE

- **CERN** Geneva, Switzerland
Research and Development Intern March 2018 - February 2019
Affiliated with Cincinnati University and Princeton University.
Worked on Cling C++ interpreter and Clang C++ Modules.
- **Google Summer of Code** Remote
GSoC Student April 2017 - August 2017
Worked on a dynamic shell autocompletion project in LLVM/Clang organization.

TEACHING AND MENTORING EXPERIENCE

- **Google Summer of Code** Remote
Mentor April 2019 - present
Honored to be a mentor at HEP software foundation.
- **Security mini-camp** Japan
Lecturer 2019
Honored to give a compiler lecture to young students in the government-funded security lecturing project.

INVOLVED PROJECTS

- **ROOT:** An open source data analysis framework widely used in High Energy Physics field. Committer and an everyday contributor since March 2018. Maintaining Cling C++ interpreter and developing ROOT Runtime C++ Modules.
- **LLVM/Clang:** An open source compiler. Committer and a regular contributor since 2017. Maintaining autocompletion feature and options in Clang Driver, and developing C++ Modules.
- **IWACPU:** The university's CPU experiment project. Designed an original instruction set and implemented a CPU core, assembler, emulator, OS, and shell. The OS and shell can be run on the CPU.

SKILLS

- **Languages:** C/C++, Python, JavaScript, Verilog HDL
- **Technologies:** LLVM/Clang, C++ Modules, Computer Graphics
- **Natural Languages:** Japanese (native), English (fluent), Spanish (intermediate), Russian (intermediate)

GRANTS

- **Research Internship Grant:** *The university of Tokyo Study and Visit Abroad Program (SVAP)*, 2019.
- **Travel Grant:** *The university of Tokyo Computer Science Alliance*, 2019.
- **Travel Grant:** *LLVM organization*, 2017.