

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: 3.975/4.0. *April. 2015 – present*
Advisor: Takeo Igarashi

SELECTED PUBLICATIONS AND TALKS

- **PaintersView: Automatic Suggestion of Optimal Viewpoints for 3D Texture Painting**
Yuka Takahashi, Tsukasa Fukusato, Takeo Igarashi
In *SIGGRAPH Asia 2019* (Technical Brief).
- **Migrating large codebases to C++ Modules**
Yuka Takahashi, Oksana Shadura, Vassil Vassilev.
In *19th International Workshop on Advanced Computing and Analysis Techniques in Physics Research (ACAT) 2019* (Oral).
- **Stitch: An Interactive Design System for Hand-Sewn Embroidery**
Yuka Takahashi, Tsukasa Fukusato.
In *ACM SIGGRAPH 2018* (Poster).
ACM SIGGRAPH Student Research Competition 3rd place.
- **Optimizing Frameworks' Performance Using C++ Modules-Aware ROOT**
Yuka Takahashi, Vasil Georgiev Vasilev, Raphael Iseman.
In *23rd International Conference on Computing in High Energy and Nuclear Physics (CHEP) 2018* (Poster).
- **A Better Shell Command-line Autocompletion for Clang**
Yuka Takahashi.
In *LLVM developer's meeting 2017* (Lightning talk).

EXPERIENCE

- **UC Berkeley** Berkeley, CA
Research Internship Student *August 2019 - September 2019*
Worked on Halide Scheduling Tool, under a supervision of Jonathan Ragan-Kelley.
- **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.