Yuka Takahashi

https://yamaguchi1024.github.io/

Email : yukatkh@is.s.u-tokyo.ac.jp

EDUCATION

- **The University of Tokyo** — Tokyo, Japan
  Bachelor of Science in Information Science. Major GPA: 3.97/4.0. — 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 Isemann.
  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.