Fangyi Zhou （周方易）

me@fangyi.io | https://github.com/fangyi-zhou | Pronouns: **they/them**

EDUCATION

PhD in Computing Imperial College London Sep 2019 — present

Supervisor: Professor Nobuko Yoshida

Research Topics: Multiparty Session Types, Refinement Types, Type Systems, Concurrent Processes

Expected Thesis Submission: 2023

MEng in Computing Imperial College London (1st Class Honours, Overall 86.89%) Oct 2015 — Jun 2019

Dean's List for Years 1, 2, 3 and 4

Awards: Adrian Israel Memorial Prize, Corporate Partnership Programme Prize, G-Research Ltd Prize, Corporate Partnership Programme Award, Governors' Prize (for **best overall performance**)

EXPERIENCE

Research Assistant Imperial College London/Universify of Oxford Sep 2019 — present

Worked in the Mobility Research Group under the supervision of Professor Nobuko Yoshida, supported by EPSRC Grants. (Sep 2019 — Sep 2022 at Imperial, Oct 2022 onwards at Oxford due to PI movements)

Graduate Teaching Assistant Imperial College London Oct 2019 — Jun 2022

Worked in the Department of Computing on the *Concurrent Processes* course (4^{th} year undergrad./master level).

Software Engineering Intern (Industrial Placement) Facebook UK Apr 2018 — Sep 2018

Worked in Hack Language team on the type checker, and in Sapienz team on improving categorisation of crashes of mobile applications.

Undergraduate Teaching Assistant Imperial College London Oct 2017 — Mar 2018

Worked in Department of Computing to provide group tutorial support for 1^{st} year undergraduate students.

Research Intern Arm Jul 2017 — Sep 2017

Worked in Security Research Group on specification and verification of data structures used in hypervisor software for embedded systems.

PUBLICATION

[1] A. D. Barwell, A. Scalas, N. Yoshida, and F. Zhou. "Generalised Multiparty Session Types with Crash-Stop Failures". In: *33rd International Conference on Concurrency Theory (CONCUR 2022)*. Vol. 243. Leibniz International Proceedings in Informatics (LIPIcs). Dagstuhl, Germany: Schloss Dagstuhl – Leibniz-Zentrum für Informatik, 2022, 35:1–35:25. DOI: 10.4230/LIPIcs.CONCUR.2022.35.

[2] A. Miu, F. Ferreira, N. Yoshida, and F. Zhou. "Communication-Safe Web Programming in TypeScript with Routed Multiparty Session Types". In: *Proceedings of the 30th ACM SIGPLAN International Conference on Compiler Construction*. CC 2021. Virtual, Republic of Korea: Association for Computing Machinery, 2021, pp. 94–106. DOI: 10.1145/3446804.3446854.

[3] N. Yoshida, F. Zhou, and F. Ferreira. "Communicating Finite State Machines and an Extensible Toolchain for Multiparty Session Types". In: *Fundamentals of Computation Theory*. Cham: Springer International Publishing, 2021, pp. 18–35.

[4] A. Miu, F. Ferreira, N. Yoshida, and F. Zhou. "Generating Interactive WebSocket Applications in TypeScript". In: Proceedings of the 12th International Workshop on *Programming Language Approaches to Concurrency- and Communication-cEntric Software*. Vol. 314. Electronic Proceedings in Theoretical Computer Science. 2020, pp. 12–22. DOI: 10.4204/EPTCS.314.2.

[5] F. Zhou, F. Ferreira, R. Hu, R. Neykova, and N. Yoshida. "Statically Verified Refinements for Multiparty Protocols". In: *Proc. ACM Program. Lang.* 4.OOPSLA (Nov. 2020). DOI: 10.1145/3428216.

PROFESSIONAL ACTIVITY

- Programme Committee: ICE 2023
- Reviewer: PLACES 2022
- Translation/Localisation: *Programming Language Foundations in Agda* (Simplified Chinese), Git (Simplified Chinese)

SKILL

Programming OCaml, Python, Rust, Golang, TypeScript, ...
Languages Chinese (Mandarin), English, German, Japanese

Last Updated: January, 2023