HAN XU

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EDUCATION

Peking University, Beijing, China   Sep. 2018 – Jun. 2022
- *B.S.* in Computer Science (Turing Class), GPA 3.804/4
- *Advisor*: Zhenjiang Hu

Princeton University, New Jersey, United States   Sep. 2023 – Present
- *Ph.D.* in Computer Science
- *Advisor*: David Walker
- *Research Topic*: Relational and Weighted NetKAT Extensions

RESEARCH EXPERIENCE

Research Assistant   Oct. 2019 – Jun. 2022

Peking University   Advisor: Zhenjiang Hu

Topics: Incremental Computation; General Differential Calculus for Programs.

Research Assistant   Jun. 2021 – Jul. 2023

The University of Hong Kong   Advisor: Bruno C. d. S. Oliveira

Topics: Compositional Programming; Type Difference for Intersection Types; Apartness for Intersection Types.

Research Assistant   Oct. 2022 – Present

Peking University   Advisor: Di Wang

Topic: Non-Affine Type System for Higher-Order Resource Analysis.

PUBLICATIONS

- Andong Fan, **Han Xu**, Ningning Xie. Practical Type Inference with Levels. *46th ACM SIGPLAN Conference on Programming Language Design and Implementation (PLDI 2025)*. June 2025.
- **Han Xu**, Xuejing Huang, Bruno C. d. S. Oliveira. Making a Type Difference: Subtraction on Intersection Types as Generalized Record Operations. *In 50th Symposium on Principles of Programming Languages (POPL 2023)*. January 2023.
- Andong Fan*, Xuejing Huang*, **Han Xu**, Yaozhu Sun, Bruno C. d. S. Oliveira. Direct Foundations for Compositional Programming. *In European Conference on Object-Oriented Programming (ECOOP 2022)*. June 2022.
- **Han Xu**, Zhenjiang Hu. Analytical Differential Calculus with Integration. *International Colloquium on Automata, Languages and Programming 2021 (ICALP 2021)*. July 2021.

TALKS

- Making a Type Difference: Subtraction on Intersection Types as Generalized Record Operations, *POPL 2023*, Boston, Massachusetts, January 2023.
- Analytical Differential Calculus with Integration, *ICALP 2021*, Glasgow, Scotland, July 2021, Virtual Event.

SERVICES

- **Journal Reviewer**: JFP'23, JFP'24

Skills

- **Programming Languages:** OCaml, Coq, C++, Lisp, Haskell, LaTeX.
- **Languages:** Mandarin (Native), English (Fluent), Japanese (Fluent, N1).