# RESEARCH BACKGROUND

- Type systems, subtyping algorithms, combine FP & OOP
- Formalizing languages and proving theorems in Coq
- Implementing algorithms in Haskell

#### **EDUCATION**

### The University of Hong Kong

Sept 2017 - Jul 2023

Last update: Aug 31, 2023

- Ph.D., Programming Languages
- Advisor: Dr. Bruno C. d. S. Oliveira
- Thesis: Taming the Merge Operator and Intersection Types
- External Examiners: Prof. Frank Pfenning, Prof. Ondřej Lhoták

### Zhejiang University, Hangzhou, China

2013 - 2017

• B.Sc., Computer Science and Technology

### Stockholm University, Sweden

2015 - 2016

- Department of Computer and Systems Sciences
- Exchange Student

### TEACHING EXPERIENCE

# Functional Programming @ HKU

Fall 2018

- Teaching Assistant (1 of the 2)
- Instructor: Dr. Bruno C. d. S. Oliveira
- Class Size  $\approx 100$

### Principles of Programming Languages @ HKU

*Spring 2018* 

- Teaching Assistant (1 of the 2)
- Instructor: Dr. Bruno C. d. S. Oliveira
- Class Size  $\approx 40$

# Introduction to Computing System @ ZJU

Summer 2016

- Teaching Assistant (1 of the 8)
- Instructor: Prof. Yale N. Patt (from University of Texas at Austin)
- Class Size  $\approx 200$

#### Parallel Algorithms @ ZJU

Spring 2015 & Spring 2016

- Teaching Assistant (one and only)
- Instructor: Dr. Yijie Han (from University of Missouri–Kansas City)
- Class Size  $\approx 30$

#### **PUBLICATIONS**

- 1. Nick Rioux, **Xuejing Huang**, Bruno C. d. S. Oliveira, and Steve Zdancewic. A Bowtie for a Beast: Overloading, Eta Expansion, and Extensible Data Types in F⋈. In 50th Symposium on Principles of Programming Languages (POPL), 2023.
- 2. Han Xu, **Xuejing Huang**, and 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.
- 3. Andong Fan\*, **Xuejing Huang**\*, Han Xu, Yaozhu Sun, and Bruno C. d. S. Oliveira. Direct Foundations for Compositional Programming. 36th European Conference on Object-Oriented Programming (ECOOP), 2022. (Co-first authors)
- 4. Baber Rehman, **Xuejing Huang**, Ningning Xie, and Bruno C. d. S. Oliveira. Union Types with Disjoint Switches. *36th European Conference on Object-Oriented Programming (ECOOP)*, 2022.
- 5. Wenjia Ye, Bruno C. d. S. Oliveira, and **Xuejing Huang**. Type-directed Operational Semantics for Gradual Typing. *35th European Conference on Object-Oriented Programming (ECOOP)*, 2021.
- 6. **Xuejing Huang**, Jinxu Zhao and Bruno C. d. S. Oliveira. Taming the Merge Operator. *Journal of Functional Programming (JFP)*, 2021.
- 7. **Xuejing Huang** and Bruno C. d. S. Oliveira. Distributing Intersection and Union Types with Splits and Duality (Functional Pearl). *International Conference on Functional Programming (ICFP)*, 2021.
- 8. **Xuejing Huang** and Bruno C. d. S. Oliveira. A Type-Directed Operational Semantics for a Calculus with a Merge Operator. 34th European Conference on Object-Oriented Programming (ECOOP), 2020.

# AWARDS AND SCHOLARSHIPS

- Hong Kong PhD Fellowship 2017-2021 by the Research Grants Council (RGC) of Hong Kong
- First-Class Scholarship for Elite Students in Basic Sciences
  2013-2014
  by the Undergraduate School of Zhejiang University
- First Prize 2012 in the National Olympiad in Informatics in Provinces (NOIP)
- Bronze Award in Asia-Pacific Informatics Olympiad (APIO)