

Zhendong ANG

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EDUCATION

- 2022.08 - present **National University of Singapore, Singapore**
Ph.D. in Computer Science
Adviser: Prof. Umang Mathur
- 2019.09 - 2022.07 **École Polytechnique Fédérale de Lausanne, Switzerland**
M.Sc. in Computer Science
- 2015.09 - 2019.06 **Zhejiang University, P. R. China**
B.Sc. in Computer Science

INTERNSHIP

- 2021.07 - 2022.01 **Oracle Labs, Zürich**
• Implement Intel Memory Protection Key (MPK) protection for MultiLingual Engine (MLE)

PUBLICATIONS

- POPL 2024 **Zhendong Ang**, Umang Mathur. “Predictive Monitoring against Pattern Regular Languages.”
- CPP 2024 Qiyuan Zhao, George Pirlea, **Zhendong Ang**, Umang Mathur, Ilya Sergey. “Rooting for Efficiency: Mechanised Reasoning about Array-Based Trees in Separation Logic.”
2024 CPP Distinguished Paper Award

AWARDS

- 2024 NUS School of Computing Research Achievement Award

PROJECTS

- 2022.02 - 2022.07 **Macro Annotations for Scala 3 (EPFL LAMP – Programming Methods Laboratory)**
• Designed patterns and APIs for macro annotations in Scala 3.
• Implemented macro annotations expansion.
- 2021.03 - 2021.07 **ScalaPy Related Projects (EPFL LAMP – Programming Methods Laboratory)**
• Created Numpy interface in Scala using ScalaPy and explored pattern of type facades.
• Migrated ScalaPy to Scala 3: refactored the code and used macros in Scala 3.
• Supported exposing custom Scala types to Python.
- 2020.09 - 2021.01 **Extending GADTs support in Scala 3 (EPFL LAMP – Programming Methods Laboratory)**
• Explored how subtype, class type parameters, and GADTs work in Dotty.
• Added GADTs constraint to class type parameters.
• This new feature has been merged into Scala 3.

TALK

- 2024.01 **Predictive Monitoring against Pattern Regular Languages.** POPL 2024
- 2024.01 **Predictive Monitoring against Pattern Regular Languages.** NUS PLSE Seminar
- 2023.07 **New Results of Membership Problems for Trace Languages.** Highlights of Logic, Games and Automata