

DARIUS FOO

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EDUCATION

National University of Singapore

PhD in Computer Science, under Graduate Tutorship-PhD Scheme

2020 – 2026

- Thesis: *Automated Verification of Effectful Higher-order Programs*
- Dean's Graduate Research Excellence Award, AY 2023/2024

National University of Singapore

Bachelor of Computing (Honours) in Computer Science

2012 – 2016

PUBLICATIONS

Iris on Indirection Theory: Lightweight Higher-order Ghost State

Under submission, 2026

Darius Foo, Viet-Anh Nguyen, Wei-Ngan Chin

A Program Logic for Contextual Refinement of Imperative Shift/Reset Programs

Under submission, 2026

Darius Foo, Viet-Anh Nguyen, Wei-Ngan Chin

Specifying and Verifying Future Conditions

SAS 2025

Yahui Song, Darius Foo, Wei-Ngan Chin

Specification and Verification for Unrestricted Algebraic Effects and Handling

ICFP 2024

Yahui Song, Darius Foo, Wei-Ngan Chin

Staged Specification Logic for Verifying Higher-Order Imperative Programs

FM 2024

Darius Foo, Yahui Song, Wei-Ngan Chin

Protocol Conformance with Choreographic PlusCal

TASE 2023

Darius Foo, Andreea Costea, Wei-Ngan Chin

Automated Temporal Verification for Higher-order Algebraic Effects

APLAS 2022

Yahui Song, Darius Foo, Wei-Ngan Chin

Tracing OCaml Programs

OCaml 2022

Darius Foo, Wei-Ngan Chin

WORK EXPERIENCE

Research Fellow

2026 – Present

National University of Singapore

Senior Software Engineer

2016 – 2020

SourceClear, later Veracode by acquisition

Worked on the SourceClear Agent, a tool which uses a combination of static analysis and instrumentation to discover and automatically upgrade library dependencies from CI/CD pipelines.

ACADEMIC SERVICE

Programme Committee

OCaml 2025

Subreviewer

CAV 2022, POPL 2022, TASE 2024

Artifact Evaluation Committee

ESOP 2022

Student Volunteer

PLDI 2021, SPLASH 2022

TEACHING

Database Systems

2020, 2022, 2024 S1 & S2, 2025

Programming Methodology I & II

2013-2015, 2021-2023

Software Engineering

2016, 2022