# Sean Watters

### Curriculum Vitae

University of Strathclyde
Glasgow, Scotland

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↑ https://seanwatters.uk

#### Education

2021–Date PhD Computer and Information Sciences, University of Strathclyde Supported by EPSRC Mathematical Sciences DTP grant EP/W52394X/1.

Supervisors: Dr. Clemens Kupke & Dr. Fredrik Nordvall Forsberg.

2018–2021 BSc (Hons) Computer Science, University of Strathclyde

Graduated with First Class Honours.

BSc Project: Model checking perforance of the modal  $\mu$ -calculus.

Dean's Certificate  $\times 3$ .

#### Awards and Accolades

2023 APLAS Best Paper Award 2023, with Clemens Kupke and Fredrik Nordvall Forsberg, for "A fresh look at commutativity: free algebraic structures via fresh lists"

#### Publications

2023 C. Kupke, F. Nordvall Forsberg, & S. Watters, A fresh look at commutativity: free algebraic structures via fresh lists, APLAS 2023. [link]

### Speaking

- Jun 2025 **TYPES 2025**, University of Strathclyde, UK, Rational Codata as Syntax-with-Binding: Correct-by-Construction Foundations of the Modal  $\mu$ -Calculus
- Oct 2024 MSP101, University of Strathclyde, UK, The Madness of the Modal  $\mu$ -Calculus
- Jun 2024 TYPES 2024, IT University of Copenhagen, Denmark, Extensional Finite Sets and Multisets in Type Theory
- Apr 2024 **BCTCS 2024**, *University of Bath*, *UK*, Extensional Finite Sets and Multisets in Type Theory
- Nov 2023 **APLAS 2023**, *Academia Sinica*, *Taiwan*, A Fresh Look at Commutativity: Free Algebraic Structures via Fresh Lists
- Oct 2023 MSP101, University of Strathclyde, UK, (Reflexive) Partial Monoids 101
- Jan 2023 MSP101, University of Strathclyde, UK, Sorted Lists and Free Idempotent Commutative Monoids (over strict total orders)
- Nov 2021 MSP101, University of Strathclyde, UK, A Tour of Temporal Logic. [slides]

### Citizenship

- 2025 Organising Committee (Postgraduate Representative), British Colloquium for Theoretical Computer Science (BCTCS), [link]
- 2024 **Organising Committee**, Scottish Programming Languages and Verification (SPLV) Summer School, [link]

## Teaching

- 2025 Guest Lecturer, CS260 Functional Thinking, University of Strathclyde
- 2023–2025 Tutor, CS103 Machines, Languages & Computation, University of Strathclyde
  - 2024 **Guest Lecturer**, CS106 Computer Systems and Organization, University of Strathclyde
- 2021–2024 Tutor, CS106 Computer Systems and Organization, University of Strathclyde
  - 2024 Tutor, CS208 Logic & Algorithms, University of Strathclyde
- 2022–2024 Tutor, CS260 Functional Thinking, University of Strathclyde
  - 2022 Lab Demonstrator, CS209 User & Data Modelling, University of Strathclyde