# Naso Evangelou-Oost

Website: nasosev.github.io Email: naso@oneironaut.dev

LinkedIn: nasosev

GitHub: github.com/nasosev



# **EDUCATION**

### The University of Queensland

Ph.D. in Computer Science

- Thesis: "Concurrent valuation algebras"
- Advisors: Larissa Meinicke, Ian J. Hayes

#### The University of Queensland

B.Math. (Honours Class I), GPA: 7.0/7.0

- Thesis: "Homological aspects of Morse-Bott theory"
- Advisor: Joseph F. Grotowski

#### University of Tasmania

Sandy Bay, AU

St Lucia, AU

St Lucia, AU

B.Sci. in Pure Mathematics (Honours) (incomplete; 80% coursework completed), GPA: 7.0/7.0

- Thesis: "Combinatorial structures on non-crossing partitions"
  - Advisor: Des G. FitzGerald

### University of Tasmania

Sandy Bay, AU

B.Sci. in Pure Mathematics, GPA Maj.: 6.9/7.0

#### Experience

Sirius-beta Labs

Brisbane, AU

Mathematician & Development Lead

2022 -

- Lead a project funded by the Defence Science and Technology Group (DST) through their Next Generation Technology Fund (NGTF)
- This project falls under an Industry Competitive Evaluation Research Agreement (ICERA), managed by the Information Warfare STaR Shot initiative

Oneironaut Brisbane, AU

Founder, Mathematician & AI Engineer

2022-

- Independent consultancy for mathematical research and software development
- Utilising artificial intelligence, applied category theory, formal methods, functional programming

# Independent Consultant

AU

Mathematician, Developer, Technician, Tutor

2014 - 2021

Independent consultant for mathematical research, information technology, and education

# An Tien AMA Dalat

2013-2014

VN

Teacher of English as a Foreign Language

 Experienced TOEFL teacher skilled in preparing students for English language proficiency exams and delivering engaging lessons tailored to meet individual needs

## **PUBLICATIONS**

- [1] **Evangelou-Oost, Athanasios**, "Concurrent valuation algebras", To appear, PhD thesis, The University of Queensland, 2025.
- [2] T. Goranson, B. Cardier, M. Hancock, **Evangelou-Oost, N.**, B. J. Seligmann, M. Garcia, et al., "User affordances to engineer open world enterprise dynamics", in *Interdependent Human-Machine Teams: The Path to Autonomy*, W. F. Lawless, R. Mittu, D. A. Sofge, and H. Fouad, Eds., Elsevier, 2024.
- [3] I. J. Hayes, L. Meinicke, and **Evangelou-Oost**, N., "Restructuring a concurrent refinement algebra", in *Proceedings of the 2024 Conference on Relational and Algebraic Methods in Computer Science (RAMiCS 2024)*, 2024.
- [4] Evangelou-Oost, Naso, L. Meinicke, C. Bannister, and I. J. Hayes, "Trace models of concurrent valuation algebras", in *Formal Methods and Software Engineering*, Y. Li and S. Tahar, Eds., Singapore: Springer Nature Singapore, 2023, pp. 118–136, ISBN: 978-981-99-7584-6.
- [5] Evangelou-Oost, Nasos, C. Bannister, and I. J. Hayes, "Contextuality in distributed systems", in Relational and Algebraic Methods in Computer Science, R. Glück, L. Santocanale, and M. Winter, Eds., Cham: Springer International Publishing, 2023, pp. 52–68, ISBN: 978-3-031-28083-2.
- [6] I. Dolinka, J. East, Athanasios Evangelou, D. FitzGerald, N. Ham, J. Hyde, N. Loughlin, and J. D. Mitchell, "Enumeration of idempotents in planar diagram monoids", *Journal of Algebra*, vol. 522, pp. 351–385, 2019, ISSN: 0021-8693. [Online]. Available: https://www.sciencedirect.com/science/article/pii/S0021869318306550.
- [7] I. Dolinka, J. East, **Athanasios Evangelou**, D. FitzGerald, N. Ham, J. Hyde, and N. Loughlin, "Enumeration of idempotents in diagram semigroups and algebras", *Journal of Combinatorial Theory, Series A*, vol. 131, pp. 119–152, 2015, ISSN: 0097-3165. [Online]. Available: https://www.sciencedirect.com/science/article/pii/S0097316514001563.

## TEACHING

• Teaching Assistant at The University of Queensland	2021, 2022
Functional & Logic Programming (COMP 3400)	
• Teaching Assistant at The University of Queensland	2021, 2022
Reasoning About Programs (CSSE 3100)	

# SKILLS

• Programming: Haskell, F#, Python, Isabelle/HOL, Mathematica

• Teaching Assistant at The University of Queensland

Concurrency: Theory and Practice (CSSE 7610)

- Machine Learning: Scikit-Learn, Keras, PyTorch
- Tools/Techs: SQL, Git, LATEX
- Web: TypeScript

## LANGUAGES

• English: Mother tongue

• French: Proficient, DALF C1

• Vietnamese: Beginner

• German: Beginner

# SCHOLARSHIPS AND AWARDS

•	Ethel Raybould Prize in Mathematics, The University of Queensland	2020
•	Category 1 Earmarked RTP scholarship, The University of Queensland	2020-2023
•	Dean's Commendation for Academic Excellence. The University of Queensland	2018, 2019

2021

•	Tasmania	Honours	Scholar	ship,	Universi	ity of	Tasmania
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2012

• Dean's Roll of Excellence, University of Tasmania

2010, 2012

# CONTRIBUTED TALKS

•	The 24th International Conference on Formal Engineering Methods (ICFEM), Brisbane Trace models of concurrent valuation algebras	2023
•	School of Electrical Engineering & Computer Science (EECS), Research Seminar, The University of Queensland Concurrent valuation algebras	2023
•	Formal Methods in Australia/New Zealand (FMOZ), The University of Queensland Trace models of concurrent valuation algebras	2023
•	Relational and Algebraic Methods in Computer Science (RAMiCS), Technologiezentrum Augsburg Contextuality in distributed systems	2023
•	School of Electrical Engineering & Computer Science (EECS), Research Seminar, The University of Queensland $Contextuality\ in\ distributed\ systems$	2023
•	Formal Methods in Australia/New Zealand (FMOZ), The University of Queensland Modelling distributed specifications with simplicial sets	2022
•	School of Electrical Engineering & Computer Science (EECS), Research Seminar, The University of Queensland Progress and sheaves in concurrent refinement algebra	2021
•	School of Mathematics & Physics (SMP), Analysis Seminar, The University of Queensland Homological aspects of Morse-Bott theory	2019
•	School of Mathematics & Physics (SMP), Special Topics, The University of Queensland <i>Hodge theory</i>	2019
•	School of Mathematics & Physics (SMP), Special Topics, The University of Queensland $\check{C}ech\ cohomology\ of\ a\ cover$	2018
•	School of Mathematics and Physics (SMP), Quantum Field Theory Seminar, The University of Queensland Representation theory of semisimple Lie algebras	2018
•	School of Natural Sciences, Mathematics Seminar, University of Tasmania	2015

# **ORGANISATION**

Moerdijk

Combinatorial structures on non-crossing partitions

•	Co-organiser of a Category Theory reading group with Angela Wren, The University of Queensland	2021
	Text: "Basic Category Theory" by Tom Leinster	
•	Organiser of a Topos Theory reading group, The University of Queensland	2020
	Text: "Sheaves in Geometry and Logic: A First Introduction to Topos Theory" by Saunders Mac Lane and Ieke	