# Athanasios (Naso) Evangelou-Oost

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GitHub: github.com/nasosev

# **EDUCATION**

#### The University of Queensland

St Lucia, AU

PhD in Computer Science (in progress)

2020-2023

- Thesis: "Concurrent valuation algebras"
- Advisor: Ian J. Hayes

#### The University of Queensland

St Lucia, AU

BMath (Honours Class I), GPA: 7.0/7.0

2018-2019

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

#### University of Tasmania

Sandy Bay, AU

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

2014-2015

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

#### University of Tasmania

Sandy Bay, AU

BSci in Pure Mathematics, GPA: 6.9/7.0

2010-2012

# EXPERIENCE

Oneironaut Brisbane, AU

Founder, Research Mathematician, Lead Developer

2022 -

Independent consultancy for mathematical research and software development

Sirius-Beta

Brisbane, AU

Research Mathematician, Lead Developer

2022 -

- Currently leading 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

## **Independent Consultant**

AMA Dalat

AU

VN

Research Mathematician, Developer, Technician, Tutor

2014 - 2021

- Independent consultant for mathematical research, information technology, and education

Teacher of English as a Foreign Language

2013-2014

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

#### **PUBLICATIONS**

- [1] N. Evangelou-Oost, 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.
- [2] N. Evangelou-Oost, C. Bannister, L. Meinicke, and I. J. Hayes, *Trace models of concurrent valuation algebras*, 2023. arXiv: 2305.18017 [cs.L0].
- [3] I. Dolinka, J. East, A. 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.
- [4] I. Dolinka, J. East, A. 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.

#### TEACHING

• Teaching Assistant at The University of Queensland Functional & Logic Programming (COMP 3400)	2021, 2022
• Teaching Assistant at The University of Queensland Reasoning About Programs (CSSE 3100)	2021, 2022
• Teaching Assistant at The University of Queensland  Concurrency: Theory and Practice (CSSE 7610)	2021

### SKILLS

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

• 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
• Tasmania Honours Scholarship, University of Tasmania	2012
• Dean's Roll of Excellence, University of Tasmania	2010, 2012

# CONTRIBUTED TALKS

• Formal Methods in Australia/New Zealand, The University of Queensland	2023
Trace models of concurrent valuation algebras	

- Relational and Algebraic Methods in Computer Science, Technologiezentrum Augsburg

  Contextuality in distributed systems
- School of Electrical Engineering & Computer Science (EECS), Research Seminar, The University of Queensland 2023 Contextuality in distributed systems

• Formal Methods in Australia/New Zealand, The University of Queensland Modelling distributed specifications with simplicial sets	2022
• 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
$\bullet$ 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 Combinatorial structures on non-crossing partitions	2015
Organisation	
• Co-organiser of a Category Theory reading group with Angela Wren, The University of Queensland Text: "Basic Category Theory" by Tom Leinster	2021
• Organiser of a Topos Theory reading group, The University of Queensland  Text: "Sheaves in Geometry and Logic: A First Introduction to Topos Theory" by Saunders Mac Lane and Iek  Moerdijk	2020 ee