

Richard East

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📍 Grenoble, France

Experience

PhD Researcher - Application of formal diagrams in applying SU(2) representation theory to physics, School of Computer science and Mathematics - Quantum Information, Université Grenoble Alpes, Grenoble, France	2018–Present
CEO - Sumeria Labs Co-Founded a company through the creative destruction lab in Toronto (creativedestructionlab.com) to make Natural language processing amenable to present day quantum hardware for use in finance. - Toronto, Canada	2017–2018
Co-founder - Hutsix security (hutsix.io) Co-Founded a software company addressing the human aspect of information security within organisations. Worked on business and software development. - Cardiff, UK	2015–2016
Intern Worked with Dr Muldoon investigating system dynamics in Michaelis-Menten kinetics primarily in mathematica. - Manchester University, UK	2014 - 3 months
Intern Worked with Professor Mullin on Granular flow experiments which lead to publication. - Manchester University, UK	2013 - 3 months
Participant Was part of the UN award winning 3FF leadership program designed to create dialogue between different religious groups - Manchester/London , UK	2012 - Part time

Education

Doctorate (Ph.D.) , Dep. of Computer Science, Univerisité Grenoble Alpes, France	2018-2022
Master of Science (M.Sc.) , Dep. of Computer Science & Mathematics, University of Oxford, U.K	2016-2017
Master of Physics (M.Phys.) , Dep. of Physics, University of Manchester, U.K	2011-2015

Languages

English: Mother Tongue
French, B1/B2 (CEFR)
Spanish: A1/A2 (CEFR)
Python: Familiar
C#: Worked with previously

Talks

AKLT-states as ZX-diagrams: diagrammatic reasoning for quantum states , Quantum physics and logic (online), Gdańsk, Poland	2021
Formal diagrams for condensed matter physics , ZX Community Meeting (online)	2021
Informational axioms of quantum theory , Conference on the Philosophy of Quantum computing (online), Urbino, Italy	2020
Hyperreal numbers for quantum computing , ZX Community Meeting (online)	2020

Publications

References

- [1] Spin-networks in the ZX-calculus
Richard D. P. East, Pierre Martin-Dussaud, John Van Wetering
arXiv preprint [arXiv:2111.03114](https://arxiv.org/abs/2111.03114) (2021)
- [2] AKLT-States as ZX-Diagrams: Diagrammatic Reasoning for Quantum States
Richard D.P. East, John Wetering, Nicholas Chancellor, Adolfo G. Grushin
PRX Quantum 3 (1 Jan. 2022), p. 010302, American Physical Society
- [3] Granular segregation in a thin drum rotating with periodic modulation
Richard DP East, Philippa McGuinness, Finn Box, Tom Mullin, Iker Zuriguel
Physical Review E 90.5 (2014), p. 052205, APS