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 (2021)

[2] AKLT-states as ZX-diagrams: diagrammatic reasoning for quantum states
Richard DP East, John Wetering, Nicholas Chancellor, Adolfo G Grushin
arXiv preprint arXiv:2012.01219 (2020)

[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