

Russell Yang Qi Xun

Physics Researcher, Project Manager & Public Speaker

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Profile	Citizenship Languages	Singaporean English, Mandarin,
Education	NUS High School 2013 – 2018	High Distinction, Overall GPA/CAP – 4.5/5.0 Honours in Physics, Major in Mathematics & Chemistry.
	Oxford University (Prospective) Class of 2025	MPhys, Master's in Physics Christ Church College
Work History	Research Intern @A*STAR Mar 2017 – Apr 2018	Achieved breakthroughs in the field of Condensed Matter Physics. Reduced costs of experiments performed in the 2016 Nobel Prize by 10000 times.
	Research Program Manager @NUS High School Nov 2018 – Mar 2019 Nov 2020 – Mar 2021	Trained students to be proficient in mathematical modelling, coding, experimental setup construction and public speaking spanning across 12 separate research projects.
	Ammo Tech @Singapore Armed Forces Apr 2019 – Dec 2020	Implemented team selection, project management systems & training program for future batches of research students. Received competency training in handling & maintaining high explosives for military use.
	Research Assistant @National University of Singapore Jan 2021 – Present	Conducted Condensed Matter Research specifically into Non-Hermitian Hamiltonians and systems with energy dissipation
		Working towards multiple publications with global Condensed Matter Physics experts

Awards & Grants	2019	Defence Science Organisation Scholarship – fully funded undergraduate studies
	2019	The Lee Kuan Yew Award For Mathematics & Science
	2018	WSPC-ICAAS Most Outstanding JC Science Student Award (Sole winner by MOE)
	2018	Intel International Science & Engineering Fair, Third Award in Physics
	2018	International Young Physicists Tournament, Champion + Gold Award
	2018	Singapore Science & Engineering Fair, Gold (Top 6 Projects)
	2018	A*STAR Young Researcher Award
	2018	Singapore Physics Olympiad, Silver Award
	2018	Singapore Young Physicist Tournament, Team Captain + Silver Award
	2018	Dongrun-Yau Science Awards, Semi-finalist
	2017	Singapore Young Physicist Tournament, Gold Award
	2017	Singapore Junior Physics Olympiad, Silver Award
	2016	Singapore Young Physicist Tournament, Silver Award
	2016	Singapore Junior Physics Olympiad, Bronze Award
	2015	<u>Edusave Scholarship for Integrated Programme Schools (ESIP)</u>
Invited Conferences & Attachments	2018	Nobel Prize Ceremony & Presentation, Invited Attendee & Country Representative
	2018	Stockholm International Youth Science Seminar
	2018	Sustainable Development Youth Convention SDYC (Best Position Paper)
	2018	Cultural Exchange Programme with Beijing No 4 High School
	2016	<u>Beihang University Aeronautical Engineering Academic Attachment Programme</u>
Research Projects	2017	Topological Analysis of Circuit Laplacians & Experimental Verification of Su-Schrieffer-Heeger Topoelectrical Circuit
	2018	A Detailed Analysis into the Chain that Falls Faster than Gravity
	2018	On the Recursive Amplification of Friction between Interleaved Books
	2018	Non-Invasive Determination of the Extent of Thermally Induced Protein Denaturation in Eggs
	2018	Free Surface Analysis of Stagnation Points in Thin Film Rimming Flow Inside of a Horizontally Rotating Cylinder
	2018	Dynamical Analysis of the Electro-Thermodynamic Curie Point Engine
Publications	2020	Topological Circuits - A Stepping Stone in the Topological Revolution
	2022	Designing nonhermitian real spectra through electrostatics
Professional Qualifications	2019	Certificate in Generic Manufacturing Skills (WSQ - SSG Verified) Competency Standards: Applying Quality Systems Applying Teamwork in the Workplace Performing Stock Control Operations Performing Warehouse Operations Performing 5S Techniques
	2020	Thales Group – Ammunition & Explosives Technician Certification