

Roy (Joe) Joseph Clayton

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EDUCATION	University College London (UCL) MSc: <i>Physics</i> Distinction (Expected)	London, UK 2020 - 2021
	Wesleyan University BA: <i>Mathematics & Physics</i> Student-Athlete, Dean's List: 2019, 2020	Middletown, CT, USA 2016 - 2020
WORK EXPERIENCE	Virtu Financial <i>Intern</i> <ul style="list-style-type: none">• One of six interns working within Execution Services• Projects relating to analysis of dark liquidity and ETF volumes statistics• Strong emphasis on SQL and Python/Pandas	London, UK Summer 2021
	University College London (UCL) <i>Graduate Research Assistant - Rosta Research Group</i> <ul style="list-style-type: none">• Research interests include dynamical coarse-graining techniques• Findings were featured in a submitted publication [1]	London, UK 2020 - 2021
	Wesleyan University <i>Tutor - Dean's Peer Tutoring Program</i> <ul style="list-style-type: none">• Modules: Multivariable Calculus, Quantum Mechanics I, Calculus II, Differential Equations, Linear Algebra• Implemented individualized weekly two-hour to cover coursework problems	Middletown, CT, USA 2018 - 2020
	<i>Undergraduate Research Assistant - Ellis Quantum Fluids Lab</i> <ul style="list-style-type: none">• Researching the effects of torque applied by an overhanging piezoelectric system	2018 - 2019
RELEVANT PROJECTS	MSc Physics Research Thesis <i>Markov State Models: Variational Coarse-Graining and the Kemeny Constant</i> <ul style="list-style-type: none">• Investigation of a dynamic coarse-graining of Markovian kinetic systems• Proposal of a novel expression for the optimal clustering of an arbitrary system• Numerical validation using MATLAB	2021
	Statistical Analysis <i>The Impact of "Food on the Move" on Consumption of Fruits and Vegetables by Rhode Islanders</i> <ul style="list-style-type: none">• Statistical analysis on behalf of the Rhode Island Public Health Institute	2020
	Computational Physics <i>Two Dimensional Atomic Interaction Modelling</i> <ul style="list-style-type: none">• Simulation of particle interactions using Monte Carlo techniques	2019
PUBLICATIONS	[1] V. Koskin; A. Kells; J. Clayton; A. Annibale; E. Rosta;. Variational kinetic clustering of complex networks. <i>J. Chem. Phys.</i> , 2021	
LANGUAGES	English (native), French (conversational)	
PROGRAMMING LANGUAGES	Python, C/C++, \LaTeX , MATLAB, SQL	