Roy (Joe) Joseph Clayton

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EDUCATION University College London (UCL)

London, UK

MSc: Physics

2020 - 2021

Distinction

Wesleyan University

Middletown, CT, USA

BA: Mathematics & Physics

2016 - 2020

Student-Athlete, Dean's List: 2019, 2020

WORK EXPERIENCE

Virtu Financial

London, UK Summer 2021

Intern

• 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

University College London (UCL)

London, UK

Graduate Research Assistant - Rosta Research Group

2020 - 2021

- Research interests include dynamical coarse-graining techniques
- Findings were featured in a submitted publication [1]

Wesleyan University

Middletown, CT, USA

Tutor - Dean's Peer Tutoring Program

2018-2020

- Multivariable Calculus, Quantum Mechanics I, Calculus II, Differential Equations, Linear Algebra
- Implemented individualized weekly two-hour to cover coursework problems

Undergraduate Research Assistant - Ellis Quantum Fluids Lab

2018-2019

• Researching the effects of torque applied by an overhanging piezoelectric system

RELEVANT PROJECTS

MSc Physics Research Thesis

2021

Markov State Models: Variational Coarse-Graining and the Kemeny Constant

- Investigation of a dynamic coarse-graining of Markovian kinetic systems
- Proposal of a novel expression for the optimal clustering of an arbitrary system

Statistical Analysis

2020

The Impact of "Food on the Move" on Consumption of Fruits and Vegetables by Rhode Islanders

• Statistical analysis on behalf of the Rhode Island Public Health Instittue

Computational Physics

2019

 $Two\ Dimensional\ Atomic\ Interaction\ Modelling$

• Simulation of particle interactions using Monte Carlo techniques

PUBLICATIONS

[1] V. Koskin.; A. Kells.; J. Clayton; A. Annibale; E. Rosta;. Variational kinetic clustering of complex networks. *J. Chem. Phys.*, 2021

CODING LANGUAGES

Python, C/C++, LATEX, MATLAB