# **Tharshan Thayanandan**

# **MSci. Physics**

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Languages: English | Tamil | Spanish

#### **Skills**

Programming: Python, | HTML | CSS | JavaScript | SQL | MATLAB | Excel | Numpy | Scikit-learn | Pandas |

seaborn | Tableau

Soft Skills: Problem Solving | Critical Thinking | Team Work | Adaptability | Time Management

#### Education

SEP 2019 - SEP 2023 | MSci Physics | King's College London | First Class Honours

SEP 2012 - JUL 2019 | Loxford School of Science and Technology | A-LEVELS

**Mathematics**: A

**Physics**: B

**Chemistry**: B

AS Religion and Philosophy: A

# **Work Experience**

# Technology Internship Experience by Bright Network | JUN 2021

Attended multiple seminars on the necessary skills required to work in the technological industry, such as being a model professional, communication skills, problem-solving and coding practices. Completed a work sample set by EY and designed a presentation that informed a client on how technology can be used to keep and enforce regulations.

## InsideSherpa Virtual Experience Commerical Banking Program | DEC 2020 - JAN 2021

Produced a capitalization table using data provided by the company. Prepared an industry overview page, and a deal structure overview page summarizing financial data, and conducting quantitative and qualitative analyses. Prepared a 10-year financial model forecast.

# **Projects and Relevant Coursework**

#### Bio and Nanomaterials in The Virtual Lab | OCT 2022 - JAN 2023

Developed molecular simulations using Python. Used PyMol software to create visualisations. Learned how to use a Linux operating system and use Linux commands.

#### Reinforcement Learning Project | JAN 2022 - APR 2022

Implemented and analysed different reinforcement learning algorithms in Python. Taught a cart pole to balance on its own by using various algorithms. Compare the effectiveness of different RL algorithms and optimise them.

#### Introduction to Numerical Modelling | OCT 2020 - JAN 2021

Solved differential equations that modelled the collapse of the Tacoma- Narrows bridge. Used Python programming language to apply the Cromer and Taylor methods to solve the differential equations. Solved the travelling salesman problem using a simulated annealing algorithm.

# **Achievements and Certifications**

AUG 2021 Understanding and Visualising Data with Python | University of Michigan | Coursera

JUL 2021 Responsive Web Design | Freecodecamp

JAN 2021 Virtual Experience Program Participant | Inside Sherpa | J.P Morgan

# **Volunteering and Work Experience**

## Photographer at Physics Society | SEP 2021 - FEB 2022

Promoted the events and key moments of the society. Helped the society improve its social media presence and help improve the attendance to society events.

## Mentor Buddy Scheme | SEP 2021 - JAN 2022

Assisted new first-year students to settle into university. Helped show them around campus and direct them to classes. Assisted students with coursework and course material.

## Powerhouse For Women | JUN 2017-JULY 2017

Organized social events such as painting classes and exercise classes for the attendees. Was part of a team that organized a fund/awareness raiser for the charity, helping women with mental disabilities who dealt with physical abuse.