# ELIA CHARLES

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#### **EDUCATION**

Sept 2020 - Sept 2021 University of Manchester MSc Data Science (Environmental Analytics) Sep 2014 - Jun 2018 University of Manchester, School of Biological Sciences MSci Microbiology 1st Class Wallington Grammar School Sep 2012 - Jun 2014 A-levels Grades Achieved: Biology, Mathematics, Chemistry A, A, B Sep 2007 - Jun 2012 Whitgift School Grades Achieved: GCSEOverall 4 A\*s 6 A's

#### RESEARCH EXPERIENCE

University of Manchester, School of Earth & Environmental Sciences Sep 2018- Dec 2018
Research Assistant

- · Investigated the ability of in *Shewanella oneidensis* to acclimate to copper stress under aerobic and anaerobic conditions.
- · Analysed and presented data using Microsoft Office, Prism and Python 3.
- $\cdot$  Research contributed to understanding whether copper tolerance pathways could be enhanced in S.oneidensis.

## University of Manchester, School of Biological Sciences Undergraduate Research

Sep 2017 - Jun 2018

- · Published first author paper: doi.org/10.1016/j.algal.2018.11.00
- · Investigated the biochemical signatures of *Chlamydomonas reinhardtii* following exposure to ionic stressors representative of wastewater.
- · Received introductory modules in Computational Theory, Python and Mathematica coding.
- · Analysed and presented data using MATLAB, Microsoft Office and Prism 7 in reports and presentations.
- · Analysis consisted of t-tests, Two-Way Anova, PCA and DFA.
- · Research contributed to assessing the viability of wastewater as an algal feedstock and monitored biochemical signatures over the course of acclimation.

#### WORK EXPERIENCE

## Poliglota Chile

November 2019- June 2020

Language Coach

- · Prepared lesson plans that allowed clients to learn English through speaking alone.
- · Guided group conversations in English and Spanish for clients.
- · Constantly received feedback from clients to tailor my methods to the group's learning preferences.

#### British Council English Language Assistant

September 2019- May 2020

Language Assistant

- · Assisted students with grammar and pronunciation during classes.
- · Held speaking and grammar workshops tailored to student levels.
- · Provided students with cultural facts about the UK and draw attention to slang terminology and colloquialisms.

#### St. Thomas the Apostle Secondary School

January 2019 - July 2019

Science Teacher

- · Taught KS3 and KS4 Science.
- · Guided students safely through practicals and explained statistical analysis of results.
- · Created my own lesson plans and class resources.
- · Analysed student results data to provide progress reports to students and parents.

#### **VOLUNTEERING CERTIFICATES**

**Realimentation(Volunteer)** - I volunteered with a charity based in Santiago called Realimentation. We recycle food waste from local markets as animal feed for local farmers who are effected by drought.

Harvard CS50 - Completed course using Vim text editor and used Python 3 mainly to complete tasks.

Kaggle - Completed Python, Intro and Intermediate Courses to Machine Learning, and Pandas Courses.

### SKILLS / TECHNICAL STRENGTHS

Software & Tools ArcGIS, Microsoft Office, LaTex Coding Languages Python, R, SQL, NoSQL(MongoDB)

Languages Spanish (B2)

### REFERENCES

Dr. Jon Pittman: Programme Director Biotechnology, School of Earth and Environmental Sciences , University of Manchester, jon.pittman@manchester.ac.uk, 0161 275 5235

Dr.Richard Kimber, Post-Doctorate Researcher, School of Earth and Environmental Sciences, University of Manchester, richard.kimber@manchester.ac.uk.