

Emma Lily Donovan

07948537463 | emmalitydonovan@gmail.com | <https://emmalitydonovan.github.io/cv/index>

EDUCATION & AWARDS

MSci Natural Sciences (Physics & Molecular and Cell Biology) | UCL | 1st Class Honors 2015-2019

- Masters Project: Characterization of a bacterial biosensor using a mathematical and experimental approach.
- 3rd Year project: The use of dynamical systems theory in the modelling of genetic oscillators and switches.

GCSE & A-Levels | Stanwell School | Penarth, Vale of Glamorgan 2008-2015

- A Levels: Mathematics (A*), Physics (A), Biology (A), Chemistry (A), Geography(A), Welsh Baccalaureate (A*)
- GCSE's: 12A*'s and 1A, 1B, Distinction in Additional Mathematics

Kathleen Evans Biology Prize 2015

Bronze, Silver and Gold Duke of Edinburgh Award 2015

Lily Anne Rogers Prize for Academic Achievement 2014

PROFESSIONAL EXPERIENCE

Technology Graduate Analyst| Deutsche Bank| London 08/2019-Ongoing

- **Rotation 1: GTB Trade Finance and Lending, De-risking and Limit Management**
 - Helped to create Team City pipelines and Fabric environments to help automate CICD within my team.
 - BDD end-to-end test writing using JBehave.
- **Rotation 2: GTB Client Connectivity, Cash Manager Next Generation.**
 - Hands on development in Java using Spring Boot.
 - Helping with the development of a Backend-for-Frontend component in a microservice architecture.

Access Research Team Leader| University Global Health Research League Table| London 08/2017-04/2019

- Evaluating top 25 UK research universities' contributions to global health research and access to treatment worldwide.
- Developing a fair scoring methodology based on the 2014 ranking by collaborating with Canadian and German teams.
- Organizing and managing team meetings, setting agendas, weekly tasks and deadlines for a team of 5.

Research Student| Quantitative Imaging & Nanobiophysics Group| LMCB| London 08/2018-09/2018

- Used four competing super-resolution Java algorithms to analyse data and determine the best image analysis approach.
- Optimised live cell imaging conditions using new photoactivated blinking fluorophores and STORM microscopy.

Conference Executive| UCL Biopharma Society| London 08/2017-05/2018

- Organized the 2018 UCL Biopharma Conference on Genomics & Personalised healthcare for about 100 attendees
- Found and invited 8 high profile speakers from industry, research and business, informing them of their speaker duties.
- Developed the conference programme and managed 4 workshop agendas.

Event Organizer| Carnaval Del Pueblo: Plaza Latina Festival| London 05/2017-08/2017

- Helped organize London's biggest Latino festival, attracting 15,000 people (almost doubled attendance since 2016).
- Managed social media presence and invitations of large interest groups over Facebook (designed posters campaigns).
- Managed and directed main stage (23 groups of performers including dance groups, singers, DJs and presenters).

Pro Bono Consultant| Global Citizenship| UCL| London 06/2016

- Developed a strategy for an African theatre company to integrate with the existing community within Queen Alexandra Olympic Park (QAOP) and simultaneously improve the wellbeing of the local elderly community.
- Conducted interviews with locals and the CEO of Westfield regarding the local's stigma towards the park.

COMPUTATIONAL EXPERIENCE

- Model simulation for genetic regulatory networks and their characterization using dynamical systems theory (Python)
- High performance computing course using PyOpenCL to develop parallelised code (Python)
- Model Simulation for Electron Spin Resonance in DPPH (MATLAB)
- Use of the SIR model to simulate seasonal influenza outbreaks (Python)
- Model simulation for Multi-Component Circuit (MATLAB)
- Built a simple Neural Network for the classification and diagnosis of breast cancer data (MATLAB)

SKILLS & INTERESTS

Computer Skills: Java, Spring Boot, Python, C++, MATLAB, JavaScript (beginner), HTML & CSS (Beginner)

Laboratory Skills: Transfection, Electrophoresis, PCR, DNA cloning

Science Communication: teaching, podcast scripting, museum exhibition guide, presenting

Interests: Dancing (Ballet, Hip-Hop, Contemporary, Jazz, Salsa), Hiking and Walking, Piano (Grade 6 ABRSM, 2015)

Languages: English (Native), Spanish (Native).