GEORGE SHILLCOCK

Crosby ⋄ Liverpool

g.shillcock@live.com ⋄ g-shillcock.github.io

An aspiring researcher in mathematical biology and graduate student who thrives in curiosity driven study, interested in epidemiology, ecology and evolution.

HIGHER EDUCATION

Western University   *September 2020 – present*
M.Sc. Applied Mathematics

Penultimate year courses:
Numerical Analysis, Mathematical Biology, Neural Networks, Scientific Computing

University of Glasgow   Second Class Division
Mathematics MSci.   *September 2014 – June 2019*

Fifth year courses:
Advanced Methods in Differential Equations, Applied Asymptotic Methods, Elasticity, Classical Field Theory

Fifth year research project: Discrete Iterated Maps
A presentation of discrete time, autonomous iterated maps and classification of the local stability types of dynamical systems by considering the principle invariants of the Jacobian matrix.

Fourth year courses:
Continuum Mechanics & Elasticity (A5), Fluid Mechanics (C2), Mathematical Biology (B1), Mathematical Physics (A2), Numerical Methods (B1), Partial Differential Equations (C1)

Fourth year research project: Catastrophe Theory (A2)
Involved deriving conditions under which families of functions were structurally stable under perturbation, from which the canonical forms of universal unfoldings of germs were induced. These concepts were applied to the psychology of stress in competitive athletes.

Third year: Simon Fraser University   *Vancouver, Canada*
International Exchange   *September 2016 - June 2017*
Studying abroad required me to adapt to a new school system with a significant course work component. My ability to communicate and collaborate with a diverse group of colleges and friends was pivotal in succeeding. Living in a new country and adjusting to new cultures required me to be resilient and gave me a global outlook on life.

Other courses:
Mathematics (A3, B1), Computer Science (C2), Philosophy (C1), Physics (B2)

TECHNICAL SKILLS

Programming languages	Python, Mathematica, MATLAB, Maple
Software & Tools	LaTeX, Microsoft Office
Published online resources	Wolfram Demonstrations

CONFERENCES

Tomorrow's Mathematicians Today in association with the IMA.   *February 2019*

Presented a talk at the University of Greenwich on iterative and recursive functions and the connection between the Ackermann function and hyper-operations.

WORK EXPERIENCE

Private Tutor   *September 2018 – February 2019*

Tutoring Mathematics to pupils studying for Higher National Diplomas, National 4, National 5 examinations.

University of Glasgow Mathematics Department   *October 2018 – April 2019*
Marker

Marked and provided feedback on the continuous assignment of second year Mathematics students.

University of Glasgow   *February – April 2016*
Alumni Telephone Campaigner

Engaged with alumni to continue their involvement with the University and raised funds for the Trust.

ACHIEVEMENTS & CERTIFICATES

Silver Duke of Edinburgh Award   Prefect at Chesterfield High School
Sports Leadership UK Level 1   Liverpool Physics Olympics Round Winner
Young Engineers Certificate Award   Member of National Academy for Gifted and Talented

INTERESTS

Activities: Skiing, Cycling, Bouldering, Hiking, Wakeboarding and Squash.

Instruments: Acoustic, electric and bass guitar.

REFEREES

Prof. Ian Strachan   **Dr Mike Whittaker**
Bachelors project Supervisor, Head of School *Masters project Supervisor, Senior Lecturer*
Department of Mathematics, University of Glasgow *Department of Mathematics, University of Glasgow*
ian.strachan@glasgow.ac.uk   mike.whittaker@glasgow.ac.uk
0141 330 2479   0141 330 5181