Jesse Patrick Harrison
Data Scientist (CSC – IT Center for Science Ltd)

Nationalities: Finnish and Canadian
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Projects and Publications

- Research support and HPC environment maintenance (R on Puhti supercomputer)
- Designing and teaching R courses at CSC and external institutes
- 19 peer-reviewed publications in the fields of microbial ecology, environmental chemistry and astrobiology

Work Experience

- April 2019 – Present: Data Scientist
  CSC – IT Center for Science Ltd, Espoo, Finland
  Artificial Intelligence and Data Analytics (AIDA) team
  Research support and data analysis services, HPC environment maintenance and teaching focusing on R

- 2018 – 2019: Postdoctoral Researcher
  Turku Bioscience, Medical Bioinformatics Centre, Turku, Finland
  Research focusing on human gut microbiology and bioinformatics tool development

- 2017 – 2018: Postdoctoral Researcher
  University of Helsinki, Faculty of Biological and Environmental Sciences, Aquatic Biogeochemistry
  Research Unit (ABRU), Helsinki, Finland
  Research focusing on high-throughput sequencing as a tool for marine environmental monitoring

- 2015 – 2017: Postdoctoral Researcher
  University of Vienna, Centre for Microbiology and Environmental Systems Science, Division of Microbial
  Ecology (DOME)
  Research focusing on Raman microspectroscopy for analysing bacterial cells within complex environments

- 2014 – 2015: Technical Advisory Group Member
  UK Department for Environment, Food and Rural Affairs (DEFRA)
  Advising the UK Government on issues concerning plastic biodegradability (leader of the Aquatic
  Environments Work Package)

- 2012 – 2015: Postdoctoral Researcher
  The University of Edinburgh, School of Physics and Astronomy, UK Centre for Astrobiology
  Research focusing on the habitability of extreme environments and extremophile physiology

Education

- 2008 – 2012: NERC / CASE PhD project
  The University of Sheffield, Department of Animal and Plant Sciences
  Industrial partner: UK Centre for Environment, Fisheries and Aquaculture Science (CEFAS)
  Research focusing on microbial-microplastic interactions and infrared microspectroscopy

- 2004 – 2008: MbiolSci in Biology with Conservation and Biodiversity (1st Class Hons)
  The University of Sheffield, Department of Animal and Plant Sciences
  Masters project focusing on freshwater ecotoxicology

Teaching

Certifications

- August 2019: Data Carpentry Instructor

R programming courses

- September 03–04 2019: Statistics with R (KLTO-132, University of Helsinki)
- September 23 2019: R Basics (CSC)

Other teaching experience

- 2013 – 2017: Supervisor for six Masters students (Universities of Vienna and Edinburgh)
- 2016: Practical Instructor, International Fluorescence In Situ Hybridization Course (University of Vienna)
- 2012 – 2013: MOOC Teaching Assistant (Astrobiology and the Search for Extraterrestrial Life, The University of Edinburgh)

Skills

General

- Data wrangling and manipulation
- Data visualization
- Statistical modeling and interpretation
- Science communication
- Sequence data repositories (e.g. NCBI GenBank)

OS / Software

- Linux
- R / RStudio
- Anaconda
- Spack
- Git / GitHub
- Jupyter
- PRIMER
- Bioinformatics tools (e.g. micca, mothur)

Committee and Board Memberships

- 2015 – 2019: Frontiers Editorial Board
  Review Editor (Microbiotechnology, Ecotoxicology and Bioremediation)
- 2018: Research Programme Committee
  University of Helsinki, Faculty of Biological and Environmental Sciences
- 2015: AstRoMap European Astrobiology Roadmap Panel
  Funding: European Commission
- 2013 – 2016: PhD project Steering Committee
  Swansea University and Fera Science Ltd.

Science Communication

- Eight oral presentations and eleven poster presentations at international and national conferences
- Invited attendee at four workshops (including 2013 Royal Society / Chinese Academy of Sciences Frontiers of Science Symposium, Beijing)
- Interviews including BBC Radio 4 (UK), DRadio Wissen (Germany) and a documentary on marine plastic pollution ("Plastic: The Real Sea Monster", screened in Europe by ARTE)