Andrew Davis

ddavis3739@gmail.com
https://ddavis3739.github.io/
(+44) 07923 266097

Profile

Recent Masters graduate with multiple years of research and analysis experience. Possess strong technical skills and knowledgeable in languages such as R, Python, and bash. Experience in utilizing statistical modelling, network analysis, and machine learning methods. Interested in applying data science and bioinformatics concepts to engaging research and analytical efforts.

Education

MSD Biological Sciences, University of Essex   **2018-2019**

- Researched the diversity and functioning of coastal microbial communities
- Applied a multitude of statistical modeling, network analysis, and machine learning methods
- Assisted in instructing an R course designed for postgraduate students
- Organized Pint of Science (a scientific communication event) for my local area

BSc Biological Sciences, University of Essex   **2015-2018**

- 1st Class Honours Degree

Experience

EssexLab Research Assistant, University of Essex   **Nov 2018 to August 2019**
- Assisted in the design and setup of an eye-tracker experiment
- Worked with python and eye-tracker software to help debug and stress test the experiment
- Used R to visualize and analyze eye-tracker results

Oerlikon Fairfield, Lafayette, IN   **June 2018 to Sept 2018**
- Worked as an inventory analyst at a manufacturing plant
- Used excel to summarize inventory and expected gross earnings
- Increased efficiency of identifying part shortages and relayed pertinent information to management

Final Year Dissertation, University of Essex   **Oct 2017 to May 2018**
- Investigated interactions between microbial communities and environmental factors
- Wrote bash scripts to cluster sequences into unique sequence clusters using an open-source pipeline
- Used R to analyse complex dataframes and any possible connections to related variables

University of Essex UROP Placement, Colchester, UK   **Dec 2017 to May 2018**
- Worked on a multi-year study titled "Understanding Student's Lives"
- Using R and Qualtrics survey software, successfully integrated IAT tests into pre-existing surveys and then wrote R scripts for subsequent analysis
- Optimized surveys pre-launch through various stress testing techniques

DeWoody Lab, Purdue University, West Lafayette, IN   **June 2017 to Sept 2017**
- Worked as a research assistant on an experiment investigating host/pathogen coevolution in bananaquits, *Coereba flaveola*
- Increased the efficiency of amplifying and tagging genetic samples using PCR and gel electrophoresis
- Wrote python and bash scripts to solve a problem with overlapping gene amplicons
- Practiced standard lab procedures as well as maintenance and sterilization processes

University of Essex Coral Research Lab   **Oct 2015 to April 2017**
- Worked as a lab assistant in the coral lab on campus
- Maintained important biogeochemical element and trace metal cycles in all the coral systems
- Was responsible for running the lab while technical staff were away

Shedd Aquarium   **Summer 2016**
- Worked as a field researcher assistant aboard the research vessel *Coral Reef II* analyzing the distribution of Queen Conch populations in the Bahamas
- Utilized both shallow water survey techniques and a deep-water array to collect data
- Was proactive in ensuring all data was logged electronically prior to the research cruise ending

Greenforce   **Summer of 2014 and 2015**
- Worked as an intern in the Bahamas conducting coral reef monitoring in a marine protected area using AGRRA identification methodologies
- One of the first members of the team to achieve AGGRA certification which allowed me to play a larger role in data collection
- Taught volunteers AGGRA species identifications

Awards and Scholarships

John Shire Prize for Biology (£150) - most outstanding performance in BSc Biological Sciences   **2018**

Environmental and Conservation Prize (£150) - most outstanding performance in an Environmental and Conservation-based course   **2018**

Abel-Imray Project Prize (£100) - most outstanding final year project in an Environmental and Conservation based course   **2018**

University of Essex Dean's List   **2015 - 2018**

Vice-Chancellor's International Scholarship (£1,500)   **2015**

Skills and Qualifications

Programming
- Proficient in R, Python, bash, and MS office suite
- Experience developing my own packages and functions for practical use
- Strong data analysis skills and proficient in both linear and general linear modelling

Technical Aptitude
- Possess a high level of computer literacy and am comfortable learning and operating different software
- Experience working in UNIX environments with bioinformatics programs for genome analysis

Problem Solving Skills
- Various research experiences have helped hone my analytical thinking skills
- Actively challenge myself to improve my problem management and improvisational skills in my free time

Presentations

"The Diversity and Functioning of Coastal Microbial Communities"
Max Planck Institute for Marine Microbiology   **Aug 2019**
University of Essex School of Life Sciences Graduate Forum   **Sept 2019**