



Todd M. Ellis

DATA ANALYST & STATISTICAL PROGRAMMER

Greater Hobart Region, Tasmania, Australia

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PROFESSIONAL SUMMARY

I'm a data analyst and scientist with a background in forest ecology, physical geography, and higher education. I've worked as an analyst in a wide variety of laboratory, field, and office settings across the United States and Australia. Over the course of my career, I've developed novel mathematical tools and statistical models; maintained relational databases and statistical packages used for conducting data analysis and producing standardized reports; trained countless staff, students, and volunteers; and managed complex and critical projects. My research has been published in high-impact, peer-reviewed journals, and I'm also skilled at conveying complex data and information to both casual and experienced stakeholders.

EDUCATION

Doctor of Philosophy, Biological Sciences

UNIVERSITY OF TASMANIA

- Dissertation: Dynamic mapping and analysis of New South Wales fire regimes: Past, present, and future
- Supervisors: Drs. Grant J. Williamson and David M.J.S. Bowman

Sandy Bay, TAS, Australia

2019 - present

Master of Science, Geography

WESTERN WASHINGTON UNIVERSITY

- Thesis: Climatic drivers of western spruce budworm outbreaks in the Okanogan Highlands
- Supervisor: Dr. Aquila Flower

Bellingham, WA, USA

2013 - 2016

Bachelor of Science, Physical Geography / Geology

TEXAS STATE UNIVERSITY

San Marcos, TX, USA

2007 - 2012

PROFESSIONAL EXPERIENCE

Data Analyst

UNIVERSITY OF TASMANIA: DIVISION OF FUTURE STUDENTS (PART-TIME / FULL-TIME)

- Developing statistical models and tools for meeting target university milestones
- Managing design and implementation of broad-scale university ML models for directing future university marketing, funding, and course creation
- Designing and implementing programming and data analytics training seminars for institution staff
- Overseeing development of internal reporting and statistical packages

Sandy Bay, TAS, Australia

2021-02 - present

Adjunct Researcher

UNIVERSITY OF TASMANIA: COLLEGE OF SCIENCES AND ENGINEERING (FULL-TIME)

- Developing complex data-processing and analysis pipelines using high-performance computing and big data
- Overseeing multi-year project design and implementation addressing wildfire and global climate change challenges
- Managing custom platform for interactive web-mapping, on-the-fly statistical analyses, and novel data visualisation
- Collaborating with national and international research teams tackling climate change risk and mitigation

Sandy Bay, TAS, Australia

2019-09 - present

Sustainability Analyst

UNIVERSITY OF TASMANIA: DIVISION OF FUTURE STUDENTS (CASUAL)

- Processed, analysed, and reported data to promote and review institution programmes
- Developed pipelines for automating data cleaning and collation
- Prepared data and briefings for global institution rankings
- Promoted nation-wide sustainability targets using data dashboards and reports

Sandy Bay, TAS, Australia

2019-10 - 2021-02

Data & GIS Analyst

APEX SYSTEMS: APPLE, INC. (CONTRACT)

- Developed and standardised data-processing methods for vector and multispectral raster datasets
- Managed and processed corporate GIS databases using data-driven software and programming languages
- Prepared statistical summaries, models, and analytical reports
- Led research and development projects to define novel methodologies for geospatial data

Austin, TX, USA

2018-12 - 2019-05

Faculty Research Assistant

Wenatchee, WA, USA

OREGON STATE UNIVERSITY: USDA FOREST SERVICE FORESTRY SCIENCES LABORATORY (CONTRACT)

2017-11 - 2018-06

- Converted complex data and findings into academic and government reports
- Developed explanatory models for sustainable forest management under climate change
- Created and maintained relational databases for government research
- Gathered and analysed ecological data using statistical software

Biological Science Technician II

Ridgefield, WA, USA

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE: REGION 5 (CONTRACT)

2017-08 - 2017-11

- Applied QA/QC to develop electronic biological data collection system and relational database
- Analysed biological fisheries data for state government research reporting
- Collected and recorded biological data for government research and both commercial and tribal fisheries
- Designed, built, and maintained department, fisheries, and commercial research equipment

CONSULTING

- 2020-08 **Predicting fire behaviour using historical satellite imagery**
Frontier Development Lab
- 2019-06 **Post-fire logging effects on reburn severity**
USDA Forest Service
- 2018-08 **Restoration treatment effects on ponderosa pine growth sensitivity to climate**
USDA Forest Service

HONOURS

- 2022-11 **Future Students Staff Excellence 2022 Sustainability Award**
University of Tasmania
- 2021-10 **NSW Environment, Energy and Science (DPIE) Eureka Prize for Applied Environmental Research**
Australian Museum
- 2021-09 **Future Students Staff Excellence 2021 Sustainability Award**
University of Tasmania
- 2021-08 **Certifi-Cat of Appreciation**
Ten Lives Cat Centre
- 2019-09 **Tasmania Graduate Research Scholarship (3.5x)**
NSW Bushfire Risk Management Research Hub
- 2019-09 **NSW Bushfire Risk Management Research Hub Top-Up (3.5x)**
NSW Bushfire Risk Management Research Hub
- 2018-06 **Best Fish and Wildlife Science**
Washington Department of Fish and Wildlife
- 2017-10 **Conservation Award**
Washington Department of Fish and Wildlife

VOLUNTEER EXPERIENCE

Foster Parent

Hobart, TAS, Australia

TEN LIVES CAT CENTRE

2020-05 - present

Animal Handler

New Braunfels, TX, USA

HUMANE SOCIETY OF THE NEW BRAUNFELS AREA

2018-08 - 2019-01

Animal Handler

Wenatchee, WA, USA

WENATCHEE VALLEY HUMANE SOCIETY

2018-03 - 2018-08

Technology Tutor

Wenatchee, WA, USA

NORTH CENTRAL REGIONAL LIBRARY

2018-01 - 2018-08

Geographic Information Systems Technician

Portland, OR, USA

PORTLAND STATE UNIVERSITY

2017-01 - 2017-11

Assistant Librarian

Kelso, WA, USA

BEACON HILL ELEMENTARY SCHOOL

2017-01 - 2017-11