



Todd M. Ellis

DATA ANALYST & STATISTICAL PROGRAMMER

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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, but I'm also skilled at conveying complex data and information to both casual and experienced stakeholders.

EDUCATION

Doctor of Philosophy, Biological Sciences

Sandy Bay, TAS, Australia

UNIVERSITY OF TASMANIA

2019 - 2023

- 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

Master of Science, Geography

Bellingham, WA, USA

WESTERN WASHINGTON UNIVERSITY

2013 - 2016

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

Bachelor of Science, Physical Geography / Geology

San Marcos, TX, USA

TEXAS STATE UNIVERSITY

2007 - 2012

PROFESSIONAL EXPERIENCE

Data Analyst

Sandy Bay, TAS, Australia

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

2021-02 - present

- 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

Adjunct Researcher

Sandy Bay, TAS, Australia

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

2019-09 - present

- 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
- Developing complex data-processing and analysis pipelines using high-performance computing and big data
- Collaborating with national and international research teams tackling climate change risk and mitigation

Sustainability Analyst

Sandy Bay, TAS, Australia

UNIVERSITY OF TASMANIA: DIVISION OF FUTURE STUDENTS (CASUAL)

2019-10 - 2021-02

- 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

Data & GIS Analyst

Austin, TX, USA

APEX SYSTEMS: APPLE, INC. (CONTRACT)

2018-12 - 2019-05

- 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

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

2019-06	Post-fire logging effects on reburn severity	USD\$2,500
	U.S. Forest Service	
2018-08	Restoration treatment effects on ponderosa pine growth sensitivity to climate	USD\$2,500
	U.S. Forest Service	

HONOURS

2021-10	NSW Environment, Energy and Science (DPIE) Eureka Prize for Applied Environmental Research	AUD\$10,000
	Australian Museum	
2021-09	Sustainability Award	
	University of Tasmania	
2021-08	Certifi-Cat of Appreciation	
	Ten Lives Cat Centre	
2020-08	Bushfire Data Quest 2020	AUD\$1,000
	Frontier Development Lab	
2019-09	Tasmania Graduate Research Scholarship (3.5x)	AUD\$28,000 p.a.
	NSW Bushfire Risk Management Research Hub	
2019-09	NSW Bushfire Risk Management Research Hub Top-Up (3.5x)	AUD\$5,000 p.a.
	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

Technology Tutor

Wenatchee, WA, USA

NORTH CENTRAL REGIONAL LIBRARY

2018-01 - 2018-08

Animal Handler

Wenatchee, WA, USA

WENATCHEE VALLEY HUMANE SOCIETY

2018-03 - 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