Todd M. **Ellis**

DATA ANALYST & STATISTICAL PROGRAMMER

Greater Hobart Region, Tasmania, Australia
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toddellis | tmichaelellis

PROFESSIONAL SUMMARY

I'm a data analyst and early career researcher with a varied background in forest ecology, pyrogeography, climate change, geospatial science, and higher education. I've worked as an analyst and researcher in a variety of laboratory, field, and office settings throughout 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 in institutional policies and procedures, as well as methodological approaches to statistical analysis; and managed both complex and transformative projects for higher education, government agencies, and private industry. 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   *Sandy Bay, TAS, Australia*

UNIVERSITY OF TASMANIA   *2019 - 2025*

Master of Science, Geography   *Bellingham, WA, USA*

WESTERN WASHINGTON UNIVERSITY   *2013 - 2016*

Bachelor of Science, Physical Geography and Geology   *San Marcos, TX, USA*

TEXAS STATE UNIVERSITY   *2007 - 2012*

PROFESSIONAL EXPERIENCE

Research Associate   *Sandy Bay, TAS, Australia*

UNIVERSITY OF TASMANIA: SCHOOL OF NATURAL SCIENCES (FULL-TIME)   *2024-04 - present*

- Developing complex data-processing and analysis pipelines using high-performance computing and big data
- Designing and managing organisational research databases for spatial and big data applications
- Overseeing collaborative research projects investigating issues of climate change risk
- Working closely with stakeholders to provide applied solutions to complex research questions

Data Insights Analyst   *Sandy Bay, TAS, Australia*

UNIVERSITY OF TASMANIA: STUDENT SERVICES AND OPERATIONS (FULL-TIME)   *2023-01 - 2024-04*

- Managed the development and implementation of a transformative statewide program to improve equity of access to higher education
- Lead the development of statistical models and reporting tools for managing offers and course quotas
- Streamlined and automated the higher education admissions system for school leavers
- Provided insights and consultations to institutional and external stakeholders

Adjunct Researcher   *Sandy Bay, TAS, Australia*

UNIVERSITY OF TASMANIA: COLLEGE OF SCIENCES AND ENGINEERING (FULL-TIME)   *2019-09 - 2023-03*

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

Data Analyst   *Sandy Bay, TAS, Australia*

UNIVERSITY OF TASMANIA: DIVISION OF FUTURE STUDENTS (PART-TIME / FULL-TIME)   *2021-02 - 2023-01*

- Developed statistical models and tools for meeting target university milestones
- Managed design and implementation of broad-scale university ML models for directing future university marketing, funding, and course creation
- Designed and implemented programming and data analytics training seminars for institution staff
- Oversaw development of internal reporting and statistical packages

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

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

2024-11	**Resilient Australia National Collaboration and Partnership Award** Australian Institute for Disaster Resilience
2023-09	**Student Services and Operations (SSO) Division Student Focus Award** University of Tasmania
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

VOLUNTEER EXPERIENCE

University Research Committee Member

Sandy Bay, TAS, Australia

UNIVERSITY OF TASMANIA ACADEMIC SENATE

2024-12 - present

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