Todd M. **Ellis**

DATA ANALYST & STATISTICAL PROGRAMMER

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SUMMARY

I'm a data analyst and scientist with a background in the environmental sciences. I've worked in a variety of laboratory and field settings, coordinating research projects for industry reports and scientific journal publication. I've also maintained relational database systems for public and private organizations, developed novel mathematical tools and statistical models for critical management efforts, trained hundreds of students and volunteers in analytical methods and project design, and coordinated project efforts with public and industry managers.

EDUCATION

Doctor of Philosophy, Biological Sciences *Sandy Bay, TAS, Australia*

UNIVERSITY OF TASMANIA *2019 - 2023*

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

WESTERN WASHINGTON UNIVERSITY *2013 - 2016*

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 *2021-02 - present*

- Developing models and tools for meeting university targets and KPIs using statistical and machine learning
- 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
- Processing, analysing and reporting data to promote and review university programs

Adjunct Researcher *Sandy Bay, TAS, Australia*

UNIVERSITY OF TASMANIA: COLLEGE OF SCIENCES AND ENGINEERING *2019-08 - present*

- Overseeing multi-year projct 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 *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. *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 smmaries, models, and analytical reports
- Led research and development projects to define novel methodologies for geospatial data
- Collaboratd with a global network of analysts and technicians

Faculty Research Assistant

Wenatchee, WA, USA

Oregon State University: USDA Forest Service Forestry Sciences Laboratory

2017-11 - 2018-06

- Converted complex data and findings into understandable figures and summary reports
- Built analytical models combining multiple statistical programming languages
- 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

2017-08 - 2017-11

- Collected and recorded biological data for government research and both commercial and tribal fisheries
- Applied QA/QC to develop electronic biological data collection system and relational database
- Designed, built, and maintained department, fisheries, and commercial research equipment
- Conducted outreach to the public, providing information on fisheries research, management principles, and local regulations
- Analysed biological fisheries data for research reporting
- Monitord critical fish migrations using DNA sampling and the PTAGIS coordination project
- Received training in fish, plant, and organism identification, government safety procedures, boat operation, and defensive driving

Graduate Assistant

Bellingham, WA, USA

Western Washington University: Huxley College of the Environment

2013-08 - 2016-08

- Scripted statistical methods for identifying complex ecological and climatological relationships
- Trained and led teams of research volunteers in the safe use of field and laboratory equipment
- Created and maintained university GIS geodatabses and topologies
- Developed and published novel dendroecological research projects
- Presented research findings at national conferences
- Presided over and maintained the Huxley Tree Ring Laboratory

Research Engineer

Austin, TX, USA

The University of Texas at Austin: Texas Natural Science Center

2013-04 - 2013-08

- Compiled, georeferences, and managed academic collections and geospatial databaes
- Contributed historial species range data to statewide virtual biodiversity museum
- Reconstructed historical biodata collections and events

Trail Management Intern

Angeles National Forest, CA, USA

Student Conservation Association

2013-01 - 2013-04

- Co-managed Trails Assessment and Conditions Survey (TrACS) team
- Conducted detailed survey of fire damage to public roads and trail systems
- Assisted in infrastructure restoration projects to maximise public access benefits
- Received national government-sponsored training in defensive driving

Laboratory Assistant

Austin, TX, USA

The University of Texas at Austin: Texas Natural Science Center

2012-01 - 2013-01

- Catalogued, conserved, photographed, and archived acadmic fish and fossils collections
- Maintained and updated relational database management system for institution collections
- Trained volunteers and students in laboratory safety and inventory procedures

Laboratory Assistant

San Marcos, TX, USA

Texas State University: Department of Geography

2011-03 - 2012-12

- Established geology and palaeontology laboratories for the university
- Prepared vertebrate fossils for laboratory use and public display
- Trained volunteers in laboratory procedures and sample preparation techniques
- Organised and led field exercises for sample collections and cleanings
- Captured and processed ichnological and palaeontological data using Structure from Motion
- Curated departmental fossils and rock collections