

At AITSL, we believe every Australian child deserves a quality education. This relies on quality teaching and effective school leadership. We drive effective and inspiring teaching and school leadership, to improve student learning in the classroom.



Position Description

Position title:	Data Scientist
Work location:	Melbourne
Employment status:	Maximum term, Full time to 30 June 2026
Reports to:	Principal, Data Science

About this role

The Data Scientist role sits within the Data Science team of the Teacher Workforce division at AITSL. The Teacher Workforce division is responsible for the implementation of the Australia Teacher Workforce Data Initiative (ATWD).

The ATWD is an Education Minister's Meeting endorsed national data linkage project implemented by AITSL. It provides national de-identified data on the trends and characteristics of teacher supply and the teacher workforce to support teachers and school leaders across Australia.

The Data Science team plays a critical role in ensuring that stakeholders in the education sector have the best possible information about teacher supply and teacher workforce characteristics possible. As a Data Scientist, you will be responsible for the coding, preparation and delivery of analysis and modelling, including visual presentation, to inform understanding of critical issues related to the teacher workforce.

AITSL has a hybrid work environment, and the ATWD Data Science team can work remotely.

What you'll be doing

As a data scientist working on the Australian Teacher Workforce Data, you will:

- Produce in depth insight into workforce trends and the supply pipeline. To do this you will:
 - Use your strong knowledge of univariate, multivariate and time series statistical/ML methodologies as appropriate
 - Contribute to the development of predictive models and forecasts.
- Prepare robust data transformation pipelines, including:
 - Documenting data transformations and the process of data preparation for analysis and reporting purposes, including technical reports.
 - Preparing records for the ATWD meta-data repository
- Write code to support the publication of ATWD findings (e.g., through web-apps), and create interactive visualisations.
- Develop expertise in teacher workforce and supply data so that you can:
 - Work with the Lead and Senior Data Scientists to identify opportunities for new and innovative uses of the ATWD to address policy questions
 - Collaborate with the Publications and Digital outputs team to interpret data and analysis in line with key policy questions.
 - Provide expert advice on data quality and consistency to internal stakeholders
 - Prepare advice for users of the ATWD as required, including data analysts, academic researchers and policy and program staff.
- Provide your data science expertise to the preparation of papers, including for the ATWD Oversight Board and ATWD Technical Working Group.
- Any other duties related to the provision of expert data analytical services to stakeholders as directed by the Principal, Data Science.

What we're looking for

We are looking for a Data Scientist who has:

- 3+ years of experience in data science, analytics or similar
- 3+ years of programming experience
- Intermediate to advanced knowledge of Python, including pandas.
- A strong understanding of machine learning or traditional statistical modelling, and a capacity to implement analyses and modelling using Python, R, or Stata.
- Experience creating visualisations using Plotly, or other similar visualisation libraries.

A background in education is not a prerequisite, but you will preferably have experience in analysing data for policy, or in a field related to teacher workforce supply such as economics, policy, psychology or epidemiology.

Experience with any of the following is highly desirable:

- Python web-apps
- Analysing longitudinal panel data (time-series cross-section data)
- GIS data science or spatial-temporal analysis
- Survey weighting techniques

Attributes

- The ability to work collaboratively in a team environment to achieve both individual and team goals
- Proven problem-solving ability, with a pragmatic approach to balancing time-investment, success likelihood, and the quality of the solution
- Strong data and insight communication skills
- The ability to communicate about data accurately with non-technical colleagues and stakeholders
- The commitment to plan and deliver time-critical work under broad direction

Who are we?

AITSL is a public company based in Melbourne. We are funded by the Australian Government. The Commonwealth Minister for Education and Training is the sole member of the company.

As a national body, we were established to promote excellence in the profession of teaching and school leadership. We work with the education community to improve student learning in 3 main areas of focus:

- **Initial teacher education:** We provide support, resources and tools to help ensure that every pre-service teacher is classroom ready upon graduation.
- **Quality teaching:** We help teachers be the best they can be, and provide tools and resources to maximise their impact on student learning.
- **Leadership:** We help school leaders become highly-effective by giving them the tools, resources, policies and practices needed to succeed in their important role.

We operate under our own constitution and are governed by an independent Board of Directors who bring diverse professional experiences and expertise in educational practice, research, and provision to the work of the Institute. Visit: www.aitsl.edu.au for more information about AITSL.

AITSL's Behaviours

We are committed to the key principles of equity and excellence in the education of all young Australians, to cultivate successful learners, confident and creative individuals and active and informed citizens.

We have a series of guiding behaviours that underpin and guide our work as individuals and as an organisation.

We will:

- **Be up for the challenge** - Show resilience and work with ambiguity, show passion in our work, own the whole, demonstrate optimism, show initiative, blue-sky thinking.
- **Embrace change** - Demonstrate flexibility, be adaptable, look to improve, prioritise effectively, be proactive, show empathy and patience
- **Work together** - Collaborate, support each other to thrive, acknowledge our work, celebrate success, have fun, address, and resolve issues, provide and be open to feedback.
- **Be respectful** - Care for others, actively encourage others to speak, respect diversity, be an active participant, be inclusive, use others' time effectively.

AITSL is an equal opportunity employer and is committed to building a culturally diverse organisation. We strongly welcome and encourage interest from Aboriginal and Torres Strait Islander peoples and people from culturally diverse backgrounds. We also strongly welcome and encourage people with disabilities to apply for roles with AITSL.