# APS5 Data Scientist - Expression of Interest

**Job ID:** 4152, **APS Code:** 270308

## What Inspires My Passion for Data Science

Minimising the "Tax Gap" will ensure that the Federal Government has the financial resources to implement its stated programs. This is a worthwhile and rewarding way for me to spend my final decade in the work place. Using my well developed analytical skills to ensure that the Australian Taxation System is applied fairly is what motivates me to work at the Australian Taxation Office.

## Relevant Experience - STAR Examples

### Analytical Solution Development & Stakeholder Liaison (Duties 2, 4)

**Situation:** ATO needed a feasibility assessment for a new generation of AI (vision-language) model. This class of model promises the potential for extracting information from documents provided by tax payers such as invoices and bank statements. However, vision-language models have never been deployed at the ATO before so, an assessment of accuracy and speed was required to inform investment decisions. This assessment was required to be completed within a strict timeframe.

**Task:** Design and implement a comprehensive evaluation system to measure the accuracy and throughput of two vision-language models over 195 documents.

**Action:**

The first challenge of this task was to set up the environment to run two brand new vision-language models as this had not been attempted before at the ATO. I liaised with data engineers to ensure all the model files and software packages were available and up-to-date. I configured the environment to run the large vision-language models on our Advanced Analytics Platform (AAP) within the constraints of its limited resources.

Secondly, I worked closely with the senior data scientists to design the evaluation framework including defining 17 key fields, multiple matching strategies, and batch processing.

Thirdly, I implemented the evaluation as the sole developer. During this process, I completed technical documentation and security assessments for model deployment and met all milestone deadlines through regular progress demonstrations.

**Result:** I identified which field types (monetary amounts, dates) performed well versus those requiring development (complex transaction tables). I provided data-driven recommendations on model selection and highlighted technical constraints (120 documents/hour processing speed), enabling evidence-based decisions on next-phase investment.

### Technical Reporting & Data Visualization (Duty 5)

**Situation:** Proof-of-concept evaluation results needed clear communication to senior data scientists and business stakeholders for AI investment decisions.

**Task:** Design and build the dashboard to translate technical findings (accuracy breakdowns, performance differences, processing constraints) into accessible insights while maintaining scientific rigor.

**Action:** I designed the reporting interface to visualise performance by document type and field category. Created executive summaries in plain language and comparative visualisations showing which documents suited automated extraction versus manual review. Implementing the visualisation solution through a dashboard. Built the process and corresponding data so it can be displayed in an automated manner.

**Result:** Dashboards enabled quick assessment of the model evaluation including showing certain fields (GST amounts, total amounts) achieved viable accuracy while others (transaction tables) required development. Visualisations communicated that models showed promise for pre-screening but constraints meant extraction should augment, not replace, human verification. This honest assessment enabled realistic planning for incremental improvements.