



# Industry Briefings

## What makes an Astronomer the ideal hire?

### *We are Problem Solvers and Critical Thinkers*

Research is all about using observation and analysis in search of knowledge. For this we need to break down complex questions of the universe into workable segments. Our solutions need to stand up to strict peer review - and we are trained to apply this method to any idea we are offered.

### *We Take Initiative*

From a Ph.D. thesis to posters and journal papers, publications consist of original research. It takes initiative to create your own niche of expertise in this truly massive field.

### *We are Creative*

Incorporating past research and knowledge with creative thinking is key in understanding the workings of astronomical systems of great magnitude. We are always searching the latest results for information that will enhance our work. Working in research means we never stop learning.

### *We are Collaborative*

One of astronomy's greatest strengths is its collaborative search for knowledge. Large international collectives are common and we often work with scientists across the world. This makes us more open to different cultures and opinions.

### *We are Communicators*

Be it grant applications, telescope proposals, lectures or public outreach, we are trained at scientific and non-scientific communication. We know the value of a 'good looking' poster and presentation at conferences for promoting our research.

## Our skills

### *Programming*

Modern astronomers rely heavily on computer-based analysis of data, requiring astronomers to be fluent in at least one of the following programming languages - C, C++, Python, IDL, Matlab, Mathematica. We also often have to learn new programming languages and computation methods for projects - making us fast and flexible learners.

### *Statistics & Data Analysis*

Handling large data sets from large surveys or simulations are common for modern astronomers. Working knowledge of statistics and data reduction techniques allow us to extract more information from our data.

### *Instrument development*

Advances in optical and image processing technology have put new telescopes and instruments at true heights - the instrument scientists of astronomy stand at the forefront of these fields.

### *Presentation & Writing*

Structured papers and presentations for international audiences are vital to take our work to the research community. A good knowledge of poster and documentation in LaTeX and practised presentation skills are required for astronomers.

### *Teaching & Outreach*

Astronomy is a science that fascinates the public. We are required to translate our research for non-scientific publishing to increase the public fascination of astronomy. As academics we also teach undergraduate and graduate lectures, giving us teaching experience from setting a syllabus to exam evaluations.