



Employment for Astronomy PhD's Outside Academia, a Practical Guide

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Why Care?

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Roughly the percentage of PhD graduates
that will obtain a faculty position

“Simply put, most PhD students need to make plans for a life outside academic science. And more universities and PhD supervisors must make this clear.”

<https://www.nature.com/news/many-junior-scientists-need-to-take-a-hard-look-at-their-job-prospects-1.22879>

Why a Practical Guide?

- To some degree we all know we have skills valuable to non-academic employers
- But academia is isolated, we have very little exposure to the outside world
- We often don't know what our options are or how to work towards them
- I will help you take the first steps in a practical way

Get Inspiration

- Our department has a good record of past graduates
<http://astronomy.as.virginia.edu/graduate-studies/jobs>
- Your undergrad department probably has a similar list
- I will highlight some examples from them on the next slide, if you find other good ones let me know
- Talk to your advisor and/or other faculty members, they know plenty of people who have left the field

Geneviève de Messières	2011	Astronomy Education Program Manager, National Air and Space Museum
Jodie Morgan	2009	Chief Scientist, Morgan Research Enterprises
Alok Singhal	2008	Edgestream Partners, L.P
Jamie Ostheimer	2002	Associate Director, Data Science at BioElectron Technology Corporation
Joshua Kempner	2002	Senior Imaging Scientist, VisEn Medical
Eric Richards	1999	Business Development, PLUS Location Systems
Phillip Plait	1995	The "Bad Astronomer"
William Dalton	1995	VP for Production, ArtCraft Entertainment, Inc.
Eric Lufkin	1992	Financial Advisor, Morgan Stanley
Robert Emmering	1988	Senior IT Product Specialist, Pacific Gas & Electric
Frank Levinson	1980	Founder and Principal Technologist, Finisar Corporation

Nick Tacik	2016	Data Scientist, Quandl, Toronto
Daniela Pinheiro Goncalves	2013	Manager - Enterprise Stress Testing, Scotiabank
Fernando Gabriel Pena	2010	Senior Staff Analyst at EY (Data science)
Tingting Lu	2009	Senior Analyst, Highstreet Asset Management
Martin Durant	2006	Data Science Consultant, Continuum Analytics (Toronto)
Allen Attard	2005	Technical Consultant at ION Trading (Toronto)

Network!

- In the private sector, many positions are filled without ever posting a job ad
- If your research overlaps with other fields, attend their conferences if possible
- GSAS(C) hosts several networking sessions each year
<http://gradcouncil.com/calendar/2018/3/23/career-roundtable>
- Reach out to people of interest directly



Online Presence

- A strong online presence allows you to search for jobs passively. Always keep in mind SEO
- Create accounts on LinkedIn, Google Scholar, etc
- Join the jobs for astronomers Facebook group
<https://www.facebook.com/groups/158795700924588/>
- Keep a well updated personal website. We can all publish one on UVA servers, or use another service
<http://its.virginia.edu/homedir/web/home.html>

Seek Professional Help

- Your advisor will most likely not be able to help you with non-academic job applications
- Get advice on resume and cover letter writing, interviews, and other aspects at the career center <https://career.virginia.edu/>
- Use these services early, even if you aren't planning to leave academia immediately. You will lose access to them once you are no longer a student (e.g. as a postdoc)

Resources

- <https://www.nature.com/news/many-junior-scientists-need-to-take-a-hard-look-at-their-job-prospects-1.22879>
- <http://astronomy.as.virginia.edu/graduate-studies/jobs>
- <http://gradcouncil.com/calendar/2018/3/23/career-roundtable>
- <https://www.facebook.com/groups/158795700924588/>
- <http://its.virginia.edu/homedir/web/home.html>
- <https://career.virginia.edu/>