

Betsy Barton

Founder & CEO at Infiniscape

"The Role of Responsible Data Science in a New Era for Social Media"

Social media is evolving in multiple directions at once. As scientists and data scientists, we are in a great position to influence it for the good but we need to act now. I will discuss plans for Infiniscape's new app, Kyndr, and talk about learning from social media's destructive past.

Christopher Griffith

Engineering Specialist at The Aerospace Corporation

"Guide to Working in the Aerospace Industry"

The aerospace industry offers many exciting opportunities to grow your career while continuing to use your physics background. I will talk about my experience at The Aerospace Corporation and discuss how physicists and astronomers can continue to make an impact in this industry.

Himanshi Sharma

Graduate Research Assistant at the University of Idaho

"Machine Learning on Spectra Data"

Saturn's moon Enceladus emits a plume of water vapor and icy particles from a series of fissures located near its south pole. This plume can shed light on the processes operating inside Enceladus and quantifying the plume particles' size distribution can help constrain these processes. Cassini's Visual and Infrared Mapping Spectrometer (VIMS) observed the Enceladus plume and recorded the spectra of the plume on three different dates in the summer of 2017. We use the K-nearest neighbors algorithm on spectra generated by the Mie Scattering model for a range of parameter space and use this trained model to predict the size parameters for plume spectra. This helps us obtain the size distribution of plume particles across a range of orbital phases and at several altitudes above the south pole of Enceladus.

James Guillochon

Senior Data Scientist at Esri

"Anything Anywhere But Not All at Once: What You Can Do as a Former Astronomer"

Astronomers nowadays need to be proficient in a great number of areas to be successful scientists, including programming, mathematics, statistics, data management, web design, promotion, public speaking, proposal writing, collaboration, as well as many other intangible skills. The biggest challenge for astronomers looking to jump into industry has been to convey how competent one is in the above categories, particularly when each industry differently prioritizes which skills are the most important. In my talk I'll describe two very different careers I've had since leaving astronomy (robotics engineer and geospatial data scientist), which skills have benefited me most, how I sold myself during the job search process, and what general trends I have been seeing that might affect new entrants to industry from academia.

Joshua Yao-Yu Lin

Machine Learning Postdoc at Prescient Design/Genenetech

"From Astronomy to the world of Proteins with Machine Learning"

In this presentation, I would talk about how I transition from Astrophysics PhD into Machine Learning Postdoc in industry. Also I would love to share my intern experience at Google

Research and Flatiron Institute, and how the path lead me to working on things related to protein folding and machine learning.

Julia Silge

Software Engineer at Posit PBC (formerly RStudio PBC)

“What even is “production”? MLOps for the curious”

Many people with astronomy and other quantitative training understand what goes into training a machine learning or statistical model, but creating a strategy to deploy and maintain that model can be daunting. In this meetup, learn what MLOps is, what principles can be used to create a practical MLOps strategy, and what kinds of tasks and components are involved. See how to get started with vetiver, a framework for MLOps tasks in R and Python that provides fluent tooling to version, deploy, and monitor your models.

Taka Tanaka

Head of Data and Managing Director at Roc360

“Computer Vision Applications for Homes and Mortgages”

The most valuable data in residential real estate are unstructured. Examples include property images (“How nice does this house look?”) and electronic scans of niche documents (appraisals, mortgages, titles—none of which have a universal standard format). I will share innovative research in computer vision models that the data team at Roc360 has been doing to tackle problems like using property images for property classification and evaluation, and classifying a myriad legal documents and extracting key information from them.

Uma Iyer

Science Lead at Amazon

“From Astronomy to Science Lead at Amazon”

The field of data (analytics and science), machine learning and AI powered decision making continues to grow. In my talk, I'll describe my journey from Astronomy to leading a science team at a big corporation (and other smaller places in between).