Cody Dirks

Location   Chicago, IL
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Astrophysics doctorate with experience in handling large, diverse datasets. Seeking to utilize skills in data analysis, programming, and communication as a data scientist in Chicago, Illinois.

Experience

2019   *Data Scientist (Intern)* – ActiveCampaign

- Performed analyses on customer usage of marketing automation platform. Developed machine learning model to categorize different use cases of the platform.
- Developed machine learning model to predict and analyze customer churn.

2012 – 2019   *Research Assistant* – Northwestern University

- Performed scientific research investigating the nature of the interstellar medium in sites of potential new star formation.
- Analyzed several datasets from both ground- and space-based telescopes, primarily ultraviolet spectral data from the Hubble Space Telescope.
- Developed Python code for all stages of a data science pipeline, including data collection and reduction, data exploration and analysis, and data visualization tools.
- Authored research grant proposals totaling $180,000 in awarded funding.

2013 – 2018   *Teaching Assistant* – Northwestern University

- Served as teaching assistant and curriculum development team member for the National Science Foundation grant "Engaging Introductory Astronomy Students in Authentic Research through Citizen Science."
- Developed lesson plans, in-class activities and citizen science projects, and wrote data reduction pipelines for class projects.

Education

2019   *Ph.D., Physics & Astronomy* – Northwestern University, Evanston IL

2015   *M.S., Physics & Astronomy* – Northwestern University, Evanston IL

2012   *B.Sc. Magna Cum Laude, Physics* – Southern Illinois University, Edwardsville IL
Minors: Computer Science, Mathematics

Skills

- **Programming Languages**

  Proficient – Python: AstroPy, SciPy, NumPy
  scikit-learn, Keras, Tensorflow
  Pandas
  – SQL

  Familiar – C++
  – HTML/CSS

- **Skills**

  Excellent written communication skills
  Extensive public speaking experience
  Creative problem solving
  Adaptability to new tools/technologies
  Fast learner

Service and Memberships

Junior Member, American Astronomical Society (2014 – present)
Founding Member/Event Organizer, Astronomy on Tap – Chicago (2016 – present)
Curriculum Committee Chair, NU Physics & Astronomy Graduate Student Council (2015 – present)
Organizer, Northwestern University Brown Bag Lunch Seminar Series (2014 – 2015)