

Adam Bruce Shinn

CONTACT INFORMATION

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SUMMARY

Data scientist by way of the space sciences with experience in scientific data analysis and visualization. I enjoy the end-to-end process of solving difficult problems and delivering data-driven insights.

EDUCATION

Zipfian Academy, *Data Science Fellow*, present May 2014 - September 2014

- Immersive program filled with statistics, machine learning, NLP, and data visualization.
- Capstone project *Mind the Supply Gap*:
Recommending school districts that have the most potential to be active on DonorsChoose.org
abshinn.github.io/mind-the-gap

Professional Development

April 2013 - May 2014

- Machine Learning, *Stanford University (Coursera)*
- Computing for Data Analysis, *Johns Hopkins University (Coursera)*
- Programming with R, *U.C. Berkeley Extension*
- Python Programming, *U.C. Berkeley Extension*

University of Colorado at Boulder, Boulder, Colorado

August 2007 - May 2010

- B.A., Astrophysics
- Machine Shop Certification

RELEVANT EXPERIENCE

Consultant Software Developer

April 2012 - November 2012

Laboratory for Atmospheric and Space Physics, University of Colorado at Boulder

Magnetospheres of Outer Planets Group, Advisor: Fran Bagenal

- Developed a graphical user interface to an empirical model to help scientists compare real data to empirical data. (<http://lasp.colorado.edu/mop/resources/code/#toruswidget>)

Scientific Software Developer

September 2010 - October 2011

Southwest Research Institute, Boulder, Colorado

Department of Space Studies, Advisor: Andrew Steffl

- Calibrated, analyzed, and visualized data from various NASA spacecraft including Cassini, New Horizons, Hubble Space Telescope, and STEREO.

Research Assistant / Scientific Programmer

April 2009 - September 2010

Laboratory for Atmospheric and Space Physics, University of Colorado at Boulder

Magnetospheres of Outer Planets Group, Advisor: Fran Bagenal

- Assisted research group in code development, model optimization, scientific data visualization, and web development.

COMPUTATIONAL SKILLS

- Unix
- Scripting and Analysis {Bash, Python, R, Octave/Matlab, IDL}
- Python {SciPy, Scikit-Learn, Pandas}
- Data at Scale {SQL, PostgreSQL, MongoDB, Spark}
- Visualization {d3.js, ggplot2, seaborn}
- Version Control {git}
- Compiled Languages {Fortran}
- Adobe Products {Acrobat Professional, Illustrator, Dreamweaver}
- Word Processing {L^AT_EX}

OTHER WORK
EXPERIENCE

Work-Study Student Assistant, University of Colorado Physics Department

- Assisted department in academic organizing; August 2007 - April 2009

Assistant Coach, Alta Loma High School Boys Tennis Team, Alta Loma, California

- Organized and conducted practice, coached the junior varsity team; August 2006 - June 2007

Networking Assistant, Kirkhill Aircraft Parts Company, Brea, California

- Repaired and maintained computer hardware and software; August 2002, August 2003

PUBLICATIONS

A.J. Steffl, N.J. Cunningham, **A.B. Shinn**, D.D. Durda, and S.A. Stern (2013), A Search for Vulcanoids with the STEREO Heliospheric Imager, *Icarus*, 223

Steffl, A. J., **A. B. Shinn**, G. R. Gladstone, J. W. Parker, K. D. Retherford, D. C. Slater, M. H. Versteeg, and S. A. Stern (2012), MeV electrons detected by the Alice UV spectrograph during the *New Horizons* flyby of Jupiter, *J. Geophys. Res.*, 117, A10222

S.A. Stern, N.J. Cunningham, M.J. Hain, J.R. Spencer, **A. Shinn** (2012), First Ultraviolet Reflectance Spectra Of Pluto and Charon by the HST Cosmic Origins Spectrograph: Detection of Absorption Feature and Evidence for Temporal Change, *The Astronomical Journal*, 143

CONFERENCE
PRESENTATIONS

Quasi-periodic electron bursts in the Jovian magnetosphere, A.J. Steffl and **A.B. Shinn**, American Geophysical Union, *December 2012*

Azimuthal Variations in the Io Plasma Torus and the Role of Hot Electrons, A.J. Steffl and **A.B. Shinn**, Division for Planetary Science, *October 2012*

The Io Plasma Torus During the Cassini Flyby of Jupiter, A.J. Steffl and **A.B. Shinn**, American Geophysical Union, *December 2011*

A Search for Vulcanoids Using STEREO Heliospheric Imager Data, A.J. Steffl, N.J. Cunningham, **A.B. Shinn**, D.D. Durda, S.A. Stern, European Planetary Science Congress, *October 2011*

Energetic electrons in the Jovian Magnetosphere detected by the Alice UV spectrograph aboard New Horizons, A.J. Steffl, **A.B. Shinn**, et al., Magnetospheres of Outer Planets, *August 2011*

Anticipating Juno, **A.B. Shinn** and F. Bagenal, American Geophysical Union, *December 2010*

LEADERSHIP

Boy Scouts of America, Troop 652, 1999 - 2005

- Held Senior Leadership Positions; 2003 - 2005
- Obtained Rank of Eagle Scout; 2005
- Adult Leader; 2005

Alta Loma High School Tennis Team, 2002 - 2005

- Team Captain, 2004 & 2005

WORK-LIFE
BALANCE

Personal Interests

- Rock Climbing, both sport and traditional climbing
- Mountaineering
- Tennis

Professional Interests

- Data Visualization
- Machine Learning
- Algorithm Optimization