Austin Hoag

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github.com/austinhoag

Work Experience

Imaging Product Software Developer **July 2019 - Present**
Princeton Neuroscience Institute, Princeton University *Princeton, NJ*

- Used computer vision models to perform image segmentation and object detection in brain images
- Created a full-stack web application for researchers to submit, query and visualize experimental data
- Wrote well-tested software pipelines for neuroscientific data analysis, scaled for high performance computing

Independent Contractor **September 2017 - January 2018**
Research Done *Oak Park, IL (Remote)*

- Used natural language processing to clean and analyze unstructured financial documents
- Mined Wikipedia for company and product information matching text in client's corpus
- Developed a PostgreSQL database to store extracted data products

Postdoctoral Researcher in Astrophysics **August 2018 - July 2019**
University of California, Los Angeles *Los Angeles, CA*

- Developed software to detect and classify objects in terabyte-scale space telescope imaging datasets
- Used Bayesian inference to constrain physical properties of ultra-distant galaxies from telescope images
- Published over 40 scientific articles (6 first-author) in peer-reviewed journals during my career in academia

University of California, Davis **Davis, CA**
Graduate Student Researcher *2012-2018*

- Modeled galaxy cluster mass distributions using nonparametric methods
- Analyzed telescope observations to infer timeline of the early universe to highest precision at the time

Education

University of California, Davis **Davis, CA**
Ph.D. in Physics *2012 – 2018*
GPA: 3.81/4.00

Colby College **Waterville, ME**
Bachelor of Arts in Physics, with Honors *2008 – 2012*
GPA: 3.80/4.00

Skills

Python, Linux/Unix, Javascript, HTML, CSS	SQL, Flask, Django, Docker, Redis	Google Cloud Platform LaTeX, Git

Awards

2018: Paul Brady-Charles Soderquist Graduate Fellowship, UC Davis

2014-2017: NASA Earth and Space Science Fellowship, Astrophysics

2016: Graduate Student Travel Award, UC Davis

2014: Summer Graduate Researcher Award, UC Davis

2012: Ray and Constance Chandler Fellowship, UC Davis

2008-2012: Dean's list, Colby College