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EXPERIENCE

NASA Hubble Postdoctoral Fellow

Observatories of The Carnegie Institution for Science

📅 September 2018 – Present 📍 Pasadena, CA

- Develop, implement, and maintain innovative strategies to effectively manage multi-million dollar equipment and projects.
- Produce high-impact, data-driven, frequently cited research publications in a rapidly growing sub-discipline of astronomy.
- Develop and maintain secure web frameworks to manage and distribute critical data to project team.
- Lead machine-learning efforts to effectively parse large data sets and identify key research opportunities.
- Serve as a liaison between postdoctoral researchers and leadership, leading key meetings and communicating needs to stakeholders.
- Engage in public outreach, presenting research around the world and serving as an advocate for STEM education in the greater LA area.

NSF Graduate Research Fellow

Center for Astrophysics, Harvard University

📅 September 2013 – August 2018 📍 Boston, MA

- Developed data analysis pipelines to efficiently survey and process massive data sets on rapid timescales.
- Led large teams of researchers to produce high-impact scientific publications, often requiring quick turnarounds.
- Served as a mentor to undergraduate students, aiding in the development of technical and professional skills.

EDUCATION

Ph.D. Astronomy & Astrophysics

Harvard University

📅 September 2013 – May 2018

- Studied the electromagnetic radiation produced by the collision of compact objects like black holes and neutron stars.
- Thesis title: From Design to Detection: Joint Gravitational Wave and Electromagnetic Astronomy
- **Awards:** Fireman Thesis Prize, Harvard Horizons Finalist

B.Sc. Astronomy and B.Sc. Physics

University of Maryland, College Park

📅 September 2009 – May 2013

- Double B.Sc., *Summa Cum Laude*, Minor: Mathematics
- **Awards:** High Department Honors (Astronomy), University Medal Finalist, J.R. Dorfman Prize for Outstanding Undergraduate Research.

ABOUT ME

"I use large data sets and cutting-edge models to answer some of the most difficult questions in the Universe."

SKILLS

- **Programming:** Python, C/C++/C#, R.
- **Modeling:** PyTorch, TensorFlow, Scikit-learn.
- **Frameworks:** Django, Flask, AWS, Docker.
- **Databases:** SQL, MySQL, MongoDB.
- **Development:** VS Code, Jupyter, Git & GitHub, Agile Development.
- **Testing:** Continuous Integration, Unit Testing, System Testing.
- **Productivity:** Windows/macOS/Linux, Adobe Creative Suite, Microsoft Office Suite, TeX/LaTeX.
- **Technical:** Bayesian Statistics, Machine Learning Algorithms, Quantitative Analysis.
- **Interpersonal:** Productive Mentoring, Personal Development, Team Management, Conflict Resolution.

PUBLICATIONS

I am an author on over 50 scientific publications with over 4000 citations.

PREVIOUS LIFE

I worked in commercial photography at Brendan Mattingly Photography in Washington D.C., where we produced award-winning advertising photography for both local and national businesses.

HOBBIES

- Photography & Filmmaking, Playing drums, Podcasting, Reading.
- Playing and designing both tabletop role-playing games and board games.
- Training and studying martial arts, strength training, rowing.