

Prakash Atreya, PhD

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Work Experience

Software Developer, Ludwig-Maximilians University, Munich, Germany April 2015 - Current

- Develop and improve algorithms for photometric reductions of Dark Energy Survey Data
- Contribute to the data reduction pipeline for Dark Energy Survey data and ESA Euclid mission

Software Engineer, Arecibo Observatory, Puerto Rico Nov 2011 – Mar 2015

- Develop and solely maintain user-interface to control the biggest single dish radio telescope
- Designed and developed a socket communication application across different platform and languages
- Led miscellaneous technical initiatives and projects, e.g.- created online data entry portal using PHP, HTML, CSS, SQL and other web technologies
- Support scientists and staff with technical issues. Supervised students with their internship projects

System Engineer, IMCCE, Paris, France Sep 2009 – Feb 2011

- Developed the core data processing engine to analyze Gigabytes/day of astronomical data
- Took end-to-end responsibility of the project from gathering requirement, design, implementation, and testing to final delivery
- Utilized cross-domain expertise in mathematics, science and software to build highly effective and resilient system

Researcher, Queens University Belfast, UK Sep 2005 – Jul 2009

- Design and developed comprehensive, modular, and fully automated video meteor analysis software.
- Software uses image processing and pattern matching techniques to identify meteor and stars, and various numerical and statistical methods for astronomy.
- The software is being used in meteor stations in Ireland, France, Russia, and Australia.

Educational Qualifications

PhD in Astrophysics, Queens University Belfast, UK Sep 2005 – Jun 2009

B.Sc. in Astrophysics, Jacobs University Bremen, Germany Sep 2002 – Jun 2005

Technical Skills

Programming Languages Python, PHP, Tcl/Tk, IDL

Web Technologies HTML 5, JavaScript, CSS 3, AJAX, JQuery

Database MySQL

Cloud AWS EC2, S3, RDS, SES, SNS, CLI