

# John Clover

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## Objective

To continuously learn while utilizing my skills and experience supporting computer systems in challenging and technical roles.

## Experience

### Moderation and Community Operations, Quora, Mountain View, CA – 2012-2014

#### **Site Governance and Policy**

Wrote site policies related to content and interaction for a large, collaborative question and answer site. These policies responded to emerging issues and governed what types of content were allowed to be added to the site. The policies were enforced by a small group of volunteer site moderators.

#### **Organizing Volunteer Moderators**

Selected and guided a group of over 100 volunteer moderators who helped to enforce the policies and community standards of the site.

#### **Content Quality**

Created the initial tools to programmatically detect and remove low quality content such as spam and fake profiles. Identified what types of content were the hardest to detect automatically and created estimates of the amount of work required to obtain full coverage as the site scaled.

### Staff Research Associate, Center for Astrophysics and Space Sciences, UC San Diego – 2006-2012

#### **Background Sky, Zodiacal Light and Gegenschein model**

Created new versions of long term and time varying background sky, including the sidereal background, and implemented an analytical model of the Zodiacal dust and Gegenschein. These portions of the bright sky are removed to enhance the signal of the Thomson scattered white light from the Sun.

#### **Epsilon Aurigae, Citizen Sky Campaign**

Used stellar data from the SMEI all sky imager to create a long term time series of the varying brightness of several stars, including epsilon Aurigae which eclipses once every 27 years. The SMEI instrument provided data closer to the Sun than ground observers were able to observe with a much higher cadence. This work was done without funding and contributed to the Citizen Sky campaign and to several posters at the Winter 2011 American Astronomical Society conference in Seattle, WA.

#### **Implementing UCSD Space Weather Models at the Community Coordinated Modeling Center (CCMC) at Goddard Space Flight Center**

Helped implement three separate UCSD tomographic 3D solar wind reconstruction programs at the CCMC for use in space weather forecasting. Created several custom Python scripts to wrap existing Fortran programs and to manage data input and output.

### **Real Time Pipeline for Data Processing**

Moved existing cron based data pipeline to an inotify event based system written in Python to reduce data reduction latency by up to 3 hours. Data is now processed immediately as it arrives from Air Force servers and composite images are available in as little as 20 minutes after the arrival of the last frame for an orbit.

### **Hardware Deployment**

Replaced fifteen Pentium 4 systems with three servers and redistributed the work load, reducing data processing time by a factor of 10. Designed and built a dual Xeon server for high resolution 3D tomography.

### **Comet Tail Analysis**

As an undergrad, created a new technique to measure the solar wind speed using the plasma tails of comets in high temporal and spatial resolution sky images, leading to two separate publications with analysis of four comets from two separate spacecraft.

### **UCSD Codebase**

Responsible for maintaining and implementing bug fixes of 20 year old IDL, Fortran and script code bases for the Solar and Heliospheric Physics group at UCSD. Documentation available online: [http://ips.ucsd.edu/help/smei/pro\\_frames.html](http://ips.ucsd.edu/help/smei/pro_frames.html)

### **Radio Telescope Data**

Converted data from the EISCAT radio telescopes in Europe and the Ooty radio telescope in Ootacamund, India for use with the UCSD tomographic solar wind reconstruction programs to reconstruct the solar wind speed and density in 3D.

## **Technical Developer / Quality Assurance, Red Hat, Inc, Durham, NC 1999-2002**

### **Developer Support**

Provided advanced server support for Red Hat Linux clients and end-users. Created customized Linux based solutions for clients.

### **Quality Assurance**

Tested client and server functionality of Red Hat's Python based tool "up2date" which provided package management and system update functionality to Red Hat Linux.

## **Education**

UC San Diego, La Jolla, CA — Bachelor of Science in Physics, 2008

## **Skills**

Basic Linux System Administration

Languages: Python, C, Go, JavaScript, Bash, Fortran, IDL