

CONTACT

INFORMATION

Department of Astronomy
New Mexico State University
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CITIZENSHIP

USA/El Salvador

EDUCATION

New Mexico State University, Las Cruces, NM

M.S., Astronomy (Graduation date: December, 2009)

- Advisors: Dr. Christopher Churchill and Dr. Jon Holtzman
- Area of study: Stellar populations

University of Hawai'i at Hilo, Hilo, HI

B.S., Astronomy, May 2003

- Minor in Physics

WORK

EXPERIENCE

New Mexico State University, Las Cruces, NM

Research Assistant

August 2006 to August 2009

- Study of stellar population of the disk of M33
- Used the DOLPHOT program to obtain photometry of stars imaged with HST/ACS
- Performed chi-squared fitting of Hess diagrams to investigate star formation history of observed fields

New Mexico State University, Las Cruces, NM

Teaching Assistant

August 2005 to May 2009

- Taught lab associated with undergraduate introductory astronomy course
- Assisted as observatory instructor as part of laboratory
- Conduct lecture for undergraduate introductory astronomy course when professor was not present
- Graded class and laboratory assignments as necessary

Subaru Telescope, Mauna Kea, HI

Observation System Associate

November 2003 to June 2005

- Operate and monitor telescope during nightly operations
- Operate the CISCO infrared camera and spectrograph
- Operate the Suprime-Cam optical imager
- Assisted astronomers in the collection of science quality data
- Troubleshoot telescope and instrument errors as they arise
- Collect environmental data during nightly operations
- Maintain log of nightly operations
- Insured safety of team members during nightly operations on the summit of Mauna Kea

NASA Infrared Telescope Facility, Mauna Kea, HI

Observatory Night Assistant

August 2003 to December 2003

- Assist telescope operator at the summit of Mauna Kea during nights of remote observing
- Fill infrared camera with liquid nitrogen
- Perform safety and weather checks throughout the evening

Institute for Astronomy, Hilo, HI

Student Research Assistant

September 2002 to May 2003

- Conducted research under primary investigator, Dr. Michael West, in search for intracluster globular clusters in the Virgo Cluster
- Conducted data reduction of CCD imaging

Mauna Kea Visitor Information Station, Mauna Kea, HI

Interpretive Guide

June 2002 to September 2002

- Conducted public tours of observatories on the summit of Mauna Kea, safely escorting visitors in 4WD vehicles
- Conducted nightly stargazing tours for the public
- Museum guide
- Set up and operated amateur telescopes of various sizes and designs

FOREIGN
LANGUAGES

Spanish - Fluent both written and spoken.

COMPUTERS &
PROGRAMMING

Well-versed in Mac OS X, Windows, Linux, and other Unix-based operating systems. Experience with IRAF, IRAF scripting, shell scripting, awk, IDL, and MatLab. Proficient programming in C and Fortran. Proficient with the SuperMongo plotting program. Experience with L^AT_EX, Microsoft Office, HTML and other common productivity packages for Windows, OS X, and Linux platforms.

PUBLICATIONS

Asteroseismology of the β Cephei star ν Eridani
G. Handler, et. al., 2004, MNRAS, 347, 454

POSTERS

Stellar Populations of the Disk of M33
January 2007: American Astronomical Society meeting
R.J. Avila, J.A. Holtzman, D.R. Garnett, & A. Sarajedini

VOLUNTEER
EXPERIENCE

Over 100 hours of volunteer work as stargazing and museum guide at the Mauna Kea Visitor Information Station.