

Nils-Erik B. Rundquist

Physics • Data • Software

7849 Camino Glorita, San Diego, 92122
(760) 412 7002 • Nils.Rundquist@gmail.com

Professional Experience

UCSD Center for Astrophysics and Space Sciences
Optical Infrared Laboratory La Jolla, CA

Research Associate

April 2018 - Present

Astrophysics researcher for the development of physics simulation software for various first-light optical and infrared astronomy instruments. Designs and implements simulations for photometric error analysis and end-to-end science cases, manages software development and documentation, and designed and deployed public online exposure time simulation software package. Creates and manages automated scripts for the generation and analysis of large scientific datasets. Works in collaboration with an international adaptive optics and instrument design team. Authors published scientific result papers, analyzes and presents data results to inform instrumental performance and design. Performs perfunctory laboratory management tasks.

Lab Assistant

April 2017 - March 2018

Lab assistant and student researcher for the development of physics simulation software.

Outback Adventures La Jolla, CA

Wilderness Guide

January 2014 – March 2018

Lead guide for a large variety of wilderness trips including but not limited to backpacking, kayaking, canoeing, and rock climbing expeditions. Managed logistical preparation of expeditions and the well-being and safety of course participants.

Administrative Assistant

January 2015 – September 2017

Managed office responsibilities associated with Outback Adventure's outings program, including coordinating participant information, trip emergency protocols, and payroll responsibilities.

Challenge Course Facilitator

June 2015 – October 2017

Facilitated and supervised large numbers of participants on UCSD's high-ropes challenge course and conducted team-building exercises.

Climbing Gym Coordinator

September 2016–June 2017

Managed safety of climbing gym members and instructed patrons on rock climbing and belaying techniques.

Other work experience includes case-by-case technical support, volunteer work, and other clerical occupations.

Education

B.S. in Physics with Specialization Astrophysics

Graduated 2017

University of California, San Diego

Software Proficiencies

- Python, Matlab, IDL, C, C++, Mathematica, HTML
- Linux, Windows, Apple systems
- Bash Shell, C Shell
- Microsoft Office Expertise
- Git
- CAD - AutoDesk, Fusion

Skills and Certifications

- Data analysis and presentation
- Communications and leadership skills, experienced in group management.
- Certified Wilderness First Responder (WFR)
- Class B Commercial Driver
- Fluent German