

# REED D. MEYER

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U.S. Citizen

## Objective

An information technology position that profits from a strong background in science, numerical analysis, and similar areas.

## Education

- Ph.D., Astronomy, Yale University, 2002
- M.Phil., Astronomy, Yale, 1996
- M.S., Astronomy, Yale, 1994
- B.S. with Distinction and with Honors, Physics, The Pennsylvania State University, 1993
- B.S. with Distinction and with Honors, Astronomy and Astrophysics, Penn State, 1993
- Mathematics minor, Penn State, 1993

## Academic Honors and Awards

- Garfinkel Prize Fellowship, Yale, 1993
- Phi Beta Kappa, Penn State, 1993
- Braddock Scholarship, Penn State, 1989–1993 (four year, full scholarship)
- University Scholar, Penn State, 1989–1993

## Organizations

- Sigma Xi, the Scientific Research Society, 1993–present (Full Life Member)
- Astronomical Society of the Pacific, 2003–2004
- Penn State Astronomy Club, 1989–1993 (President 1991–1992)

## Avocations

- Musical composition and performance
- Fiction writing
- Computer programming and font design
- Basketball

## Bibliography

- Twenty scientific publications, including two theses and several refereed journal articles
- Non-scientific works include computer software, graphic arts, literature, and musical compositions

## Computer Experience

- **Physical models and simulations.** Developed Monte Carlo simulations of astronomical detector response, galactic nuclei, others. Modeled stars via solution of partial differential equations with physical constraints.
- **Data analysis.** Constructed innovative statistical techniques for more proper data interpretation. Expert in nonlinear, multivariable function optimization.
- **Instrumentation.** Wrote Linux and Windows drivers and user interfaces for several scientific instruments.
- **Programming languages.** C/C++ since 1990 (GNU, Visual Studio). Also proficient in FORTRAN, IDL, BASIC, and HTML. Familiar with Rexx, Lisp, others. Have learned languages in 1–2 days via hands-on use.
- **System administration.** Assembled and maintained more than 15 Linux and Windows machines, including two small networks. Linux server administrator.

## Research Experience

- **2002–present: Post-doctoral Fellow, Rochester Institute of Technology (RIT).** Co-developed RITMOS, the first multi-object spectrometer that successfully incorporates a micromirror array; wrote driver software, took measurements, analyzed results, more. Taught “Programming for Imaging Science II.”
- **2000–2001: Research Assistant, RIT.** Built RYTSI, the RIT–Yale Tip-tilt Speckle Imager, in use since 2001. Did software, mechanical, and electrical design.
- **1994–2000: Research Assistant, Yale.** Measured hundreds of binary star magnitudes. Created method and program to infer, using correct statistics, stellar properties from all available magnitude measures. Installed instrumentation and wrote related software.
- **1990, 1992–1993: Undergraduate Research Assistant, Penn State.** Modeled pulsar X-ray spectra.

## References

- Contact information available upon request