

James B. Kelly

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Education

M.S. Physical Oceanography, University of Alaska Fairbanks, Fairbanks, AK. (2010-2015)
Thesis Title: “An Examination of Hydrography and Sea Level Variability in the Gulf of Alaska”

B.S. Physics, Oklahoma State University, Stillwater, OK. (2007- 2010)

A.S. Physics and Mathematics, Tulsa Community College, Tulsa, OK. (2004- 2006)

A.S. Quality Control and Non-Destructive Testing, Spartan School of Aeronautics, Tulsa, OK. (2002-2003)

Work History

Oceanographic Research Assistant, UGA, Athens, GA (May 2016 – present)

- My time here is split between data analysis and fieldwork where I play a major role in the daily instrument and laboratory operations. I plan, design, participate and lead field operations that consist of deploying and installing oceanographic sensors such as CTD's, ADCP's, HADCP's, and our Acoustic Scintillation Flow Meter. Depending upon instrument type, these instruments are moored, platform or bottom mounted. Periodic and hidden signals in the observed data are analyzed using Matlab for their scientific publication.

Graduate Research Asst./Research Technician, UAF, Fairbanks, AK. (July 2010 – Jan 2016)

- Using Matlab, my primary task was analysis, visualization and interpretation of large geophysical (climatic, oceanographic and meteorologic) time series data sets using analysis methods in both the time and frequency domain. I regularly utilize almost all basic statistical analysis methods relevant to time series as well as error analyses. I became highly competent in multiple variable spectral analysis and frequency response models by writing my own programs for these analyses (including error analyses). I regularly worked with large climatic data sets (e.g. NARR, NCEP, ARGO), such as those who are transferred via the netCDF file format. My work consisted of 80-90% analysis and 10-20% toward preparation and of field work in the remote Arctic. Fieldwork typically included operating skiffs, 4-wheelers and snow machines, to aid in the installation of HF radar, meteorologic instruments, and maintaining the remote power generation systems (wind and solar) used to power those instruments. Other tasks include, planning, logistics, construction and design improvement of the instrument platform and calibration of instruments. On several occasions I led workers on the building, construction and maintenance of the instrument platform at our lab and in the field.

Undergrad Research Assistant, OSU, Stillwater, OK. (Aug 2008 – July 2010)

- My focus during this time was in optical spectroscopy and radiation dosimetry. Under advisement I worked independently in various roles, which aided in the development (using solution combustion synthesis) and characterization of thermo and optically stimulated luminescent materials used in radiation dosimetry. To create a new method for producing dosimetric materials, I researched and

built a novel spray-drying instrument used for material production. I repaired and calibrated instruments and wrote manuals for procedures in the lab. I conducted research with novel optical instruments and the data was analyzed using Mathematica and Origin. The results were reported to my faculty adviser. Of most interest here was that I acquired a thorough understanding of radiation and particle physics and contributed to the publication below.

Welder, Thermal Engineering Incorporated, Sapulpa, OK. (Jan 2008 – Aug 2008)

- Reading blueprints for the code welding (with flux-core) and fabrication of heat exchangers and other structural components

Welder, Global Manufacturing Incorporated, Sand Springs, OK. (July 2006 – Jan 2008)

- Reading blueprints for the code welding (flux-core and mig) and fabrication of heat exchangers and other structural components

Welder/Mechanic, Reese Trailer Repair, Tulsa, OK. (June 2004 - July 2006)

- As the head fabricator I welded (with mig) various metals (carbon steel, stainless steel and aluminum) and designed, fabricated, completely rebuilt or refurbished structural and suspension components on semi-trailers (box, flatbed, car-haulers, ect.). Repair of the electrical systems, lighting, braking, suspension, and other mechanical items was also common.

Skills

Two wheel rider. I have a solid work ethic, I have held ~24 different jobs since age ~9 with no employment gaps since high school graduation in 2001. My level of responsibility has increased with every job for more than a decade, for many years I held two jobs at once. Through years in the workforce and school, I have developed diligence, problem solving skills, critical thinking, keen attention to detail, ability to construct anything, simple electronics, and most helpful is a high level of common sense and intuition. I've reached over 700 students from primary to the high school.

Publications

V.R. Orante-Barron, L.C. Olivera, **J.B. Kelly**, E.D. Milliken, G. Dennis, L.G. Jacobsohn, J. Puuckette and E.K. Yukihara (2011). Luminescence properties of MgO produced by solution combustion synthesis and doped with lanthanides and Li. *Journal of Luminescence*. 131, 1058-1065

Awards

Level II Split Second Survival Instructor, Fall 14

EPSCoR Graduate Fellowship (UAF), Spring 11

Most Diligent Student (OSU), Spring 08

1st Dan Taekwondo, Spring 08

Student of the Year (Martial Arts), Fall 06

References

Transcripts, references or letters of recommendation available upon request, just ask they're solid