resume\_98@gmail.com  
(680) 375 5233  
Sarah Locknar  
Woodstock VT - Email me on Indeed: indeed.com/r/Sarah-Locknar/6862461e87653a91 Authorized to work in the US for any employer  
WORK EXPERIENCE  
Staff Scientist and Technical Business Development Manager  
Omega Optical - Brattleboro VT - August 2014 to Present  
Responsibilities  
Fluorescence product management  
Continuation of R&D projects  
Routine sample analysis of narrow bandpasses total wavefront distortion etc. Writing reports grants and marketing materials  
Accomplishments  
Revamped the fluorescence filter set offerings for microscopy  
Led a team to redesign and relaunch one of Omega's dormant product lines  
Established collaboration with University of Vermont to obtain access to human tissue samples.  
Skills Used  
Teambuilding communication problem solving product management analytical skills  
Project Scientist  
Omega Optical - Brattleboro VT - August 2009 to August 2014  
Responsibilities  
Research and development in high-speed multispectral imaging for biomedical applications. My role was in data acquisition image analysis algorithms software user interface suggestions and literature review. Research and development in small-molecule organic photovoltaics. My role was mostly literature review and direction of the project and thin-film characterization by light microscopy AFM SEM and profilometer. I also characterized workfunction of materials via Kelvin Probe.  
Helped identify and implement process improvements in Omega's production departments.  
Attended workshops (instructor at AQLM Woods Hole) and tradeshows (ACS MRS PittCon) and educated the sales team about new applications and markets. Wrote grants peer and non-peer reviewed papers and content for website and marketing materials.  
Accomplishments  
Several publications and grant proposals in the areas of in-vivo multispectral biomedical imaging small- molecule organic photovoltaics and thin-film optics.  
I was instrumental in establishing collaborations with researchers and veterinary clinics in VT and NH.  
A process change of using a different polishing slurry composition increased yield by 50%. Developed a method to estimate blocking in filters with very low light transmission. Built laser-scattering measurement systems and a Shack-Hartmann wavefront-measuring instrument.  
Developed an online laser safety course for the company and served on the safety committee.  
Skills Used  
   
creativity problem solving communication team building project management writing and editing MS Word Excel Powerpoint data analysis some LabView SEM EDS profilometer micrsocopy optics  
Director of Marketing and Webmaster  
Green Technologies - Windsor VT - May 2003 to April 2013  
Responsibilities  
Formerly the largest used-vegetable oil biodiesel production facility in VT. Currently offering consulting services in the areas of green chemistry oxidation catalysis biodiesel and bioesters.  
Designed developed content for and maintained the website prepared brochures cold-calling for used-oil pickup and biodiesel customers.  
Helped with strategic planning business plan and grant writing.  
Accomplishments  
Wrote several grants  
Developed test protocols for oil feedstock analysis  
Skills Used  
Critical thinking and analysis creativity HTML PowerPoint MS Word FrontPage  
Technical Assistance Center Engineer  
Biotek Instruments - Winooski VT - May 2007 to August 2009  
Responsibilities  
Phone and email support for Biotek Instruments' entire product line of microplate washers and spectrophotometric microplate readers.  
Served on the green team committee and the safety committee  
Accomplishments  
Wrote tech notes for the website  
Helped write and edit a handbook for our Technical Support group  
Skills Used  
Critical thinking troubleshooting communication customer management systems MS Word  
Research Assistant Professor and Director COBRE Imaging and Physiology Core Facility  
Department of Anatomy and Neurobiology University of Vermont College of Medicine - Burlington  
VT - January 2003 to May 2007  
Responsibilities  
Director of the Center of Biomedical Research Excellence in Neuroscience a multiuser facility containing five microscope imaging systems. Systems included multiphoton laser scanning confocal high-speed fluorescence deconvolution microscopy total internal reflection microscopy and a high-speed fluorescence ratiometric imaging system.  
Helped researchers optimize and design imaging experiments including manuscript and grant preparation  
Maintained equipment usage statistics and scheduling  
Accomplishments  
Several publications in the areas of calcium regulation in neurons of guinea pig and mudpuppy and acupuncture  
Developed online laser safety course still in use  
Developed and taught a course entitled Techniques in Optical Microscopy for graduate and medical students  
Skills Used  
Teamwork teaching communication logistics critical thinking editing and writing MS Word Excel HTML Microcal Origin project management microscopy and optics  
Postdoctoral Fellow  
Department of Anatomy and Neurobiology University of Vermont - Burlington VT - August 1999 to January 2003  
Responsibilities  
Maintained the high-speed Noran confocal microscope  
Performed research on calcium regulation in cardiac parasympathetic neurons of mudpuppy and guinea pig using ratiometric and non-ratiometric fluorescent indicators. Performed imaging on immuno-fluorescently labelled tissue sections.  
Accomplishments  
Several publications in neuroanatomy and calcium imaging in neurons.  
Skills Used  
teamwork writing and editing data and image analysis IDL image analysis Microcal Origin project management  
Graduate Student  
Department of Chemistry Carnegie Mellon University - Pittsburgh PA - August 1991 to August 1999  
Responsibilities  
Original research in the area of optical spectroscopy- electroabsorption fluorescence and resonance Raman. Molecules of interest were polyenes and other aromatics embedded in polymer melts. Also attempted frozen glasses at liquid nitrogen temperatures.  
Accomplishments  
About 7 peer-reviewed publications came from this work.  
Skills Used  
Computer/ instrument interfacing HTML Matlab programming data analysis and fitting chemical synthesis MS Word MS Excel MS Powerpoint teamwork chemical modeling software (Hyperchem Argus Gaussian Mopac etc)  
EDUCATION  
PhD in Physical Chemistry  
Carnegie Mellon University - Pittsburgh PA 1991 to 1999  
BS in Biology and Chemistry  
Butler University - Indianapolis IN 1987 to 1991  
GROUPS  
Green Mountain Section of the American Chemical Society  
January 1992 to Present  
Government Affairs Committee Chair 2007-present  
Chittenden County Transit Authority  
2007 to 2009  
Commissioner from Winooski  
Served on the Finance Committee during driver contract negotiations  
ADDITIONAL INFORMATION  
I worked at Amoco Research Center during summer and winter breaks [...] in the FTIR group. I performed routine FTIR analysis of liquids (oil-in-water gasoline additives) and hot plastic melts.  
Publication list is available upon request.