Veronica Hanus

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Engineering Experience

Programmer, **Recurse Center**, New York City, NY, Sept.–Dec. 2015

Full-time, three-month educational retreat for software developers dedicated to self-improvement

Selected projects:

· Function generator to facilitate cross-dataset comparisons of climate data using JavaScript, jQuery, HTML, Mako, TurboGears 2, Python, & MongoDB

· Geography Guessing Game is a memory game with a command line interface a terminal written in Python that uses modular, recursive functions, object-oriented programming, and automated unit testing

· Prime Finder performs prime factorization using recursive, objected-oriented programming

· Sierpinski Triangle Generator uses Python and PyGame, optionally slowing the construction to ease understanding

Research Engineer, **Schlumberger-Doll Research Center Petrolabs**, Cambridge, MA, Mar.–Dec. 2014

· Validated software-derived mineralogy results with lab data for clients, using domain knowledge of regional geology of a variety of formations to confirm lab results

· Rebuilt mineral sample standards library, increasing the number of standards from 34 to 75, more than doubling the number of minerals that could be used to calibrate instruments and allowing better mineral identification

Research Assistant, **MIT Paleomagnetism Laboratory**, Cambridge, MA, Jan. 2012–Oct. 2013

· Performed conglomerate test and alternating field demagnetization on early-earth rocks in order to identify the oldest known terrestial magnetization and determine when the field originated

· Adapted lab procedures and equiptment fittings to allow single-clast terrestrial samples to be measured for the first time:

· Saved over 30 hours of labor per run by introducing silicone fittings to allow 200 disk-mounted, single-clast samples to be measured using the automated sample changer

· Improved acid wash procedure for removing contaminants from sample disks, allowing single-cast samples to be measured

· Designed drill press cooling system and sample holder to cut small cores on a saw designed for large block samples

Data Intern, **NASA Jet Propulsion Laboratory**, Pasadena, CA, Jan.–Aug. 2009

· Led student effort to determine rock distributions for possible landing sites for the Mars Curiosity rover

· Introduced three students to in-house software for QA element of our project, including reporting proceedures, and software process and limitations

· Collaborated with software lead to implement improvements by providing user UX/UI feedback and noting bugs identified during use

· Developed assessment criteria for the hazards identified by software and methods to incorporate these distributions into GIS datasets

Organization & Communication

Event Lead, **MIT Student Information Processing Board Lecture Series**, Cambridge, MA Fall 2011

· Facilitated a 15-week series of technical lectures on a variety of computing-related topics that reached 250+ people

Programming Coach, **Bootstrap Afterschool Program**, Cambridge, MA, 2011

· Used functional programming (Scheme) to leverage 14 middle-school students' excitement around videogames to teach algebric concepts by creating their own games and completing math and word problems in the process

Skills

Education

Tool	Novice	Functional	Competent	Proficient
Python	★	★	★	
LaTeX	★	★	★	★
HTML/CSS	★	★		
Unix Command Line	★	★		
Git	★	★		

(Table uses Dreyfus model of skill acquisition)

Bachelor of Arts in Geology, **Colgate University**, Hamilton, NY, 2010
· Alumni Memorial Scholar Fellow, awarded to top 2% of each class year to fund research

Certifications

Licensed Private Pilot (PVT), National Registry Certified Emergency Medical Technician (EMT-B), Wilderness First Aid Certified (WFA)