

ADAM J. STEWART

1340 W Morse Ave., Apt. 208, Chicago, IL 60626
ajstewart426@gmail.com— (607) 972-5364
<https://github.com/adamjstewart>

EDUCATION

Bachelor of Science, Cornell University, College of Engineering, Ithaca, NY May 2014
Major: Science of Earth Systems • Concentration: Computational Geophysics
Graduated *magna cum laude* with honors • Cumulative GPA: 3.94 • Major GPA: 4.04
Honors Thesis: Monitoring Glacial Velocity Variation in the Russian High Arctic Using Remote Sensing

PROFESSIONAL EXPERIENCE

Assistant System Administrator October 2015 - Present
Argonne National Laboratory, Lemont, IL

- Installed scientific packages from source code with multiple compilers and MPI implementations
- Collaborated on Python open source supercomputing package manager hosted on GitHub
- Overhauled Continuous Integration (CI) infrastructure using unit tests and flake8 through Travis CI
- Debugged node hardware, GPFS mounting problems, and InfiniBand network issues
- Unracked, moved, and reracked fully loaded servers hosting 1.2 petabytes of storage nodes

Associate Software Engineer June 2014 - September 2015
Lockheed Martin, Owego, NY

Infrastructure Analytics program (IA)

- Worked on a NYSEG/Iberdrola contract to develop software to detect downed power lines and flooding
- Enhanced simulator for modeling LiDAR data of a town with houses, trees, poles, and power lines
- Programmed primarily in C# in a .NET Framework using Microsoft Visual Studio
- Investigated several different Continuous Integration (CI) software tools for build and test automation

Remote Computer Reader program (RCR)

- Worked on the image processing software used by the USPS to sort and deliver mail
- Conducted a Failure Mode and Effects Analysis to track down bugs and discover monetary potential
- Enhanced Performance code (C) and overhauled internal testing tools (Perl, Bash, Python)
- Wrote Expect script to run Makefiles, ssh into remote machine, and ftp tar files to test bench
- Cleared for a Secret Security Clearance to access classified address databases

Collections Assistant September 2010 - January 2012
Paleontological Research Institution, Ithaca, NY

- Inventoried and relabeled older, more delicate specimens for organization and preservation
- Renovated and reorganized upper collections under NSF grant, allowing for easier access for researchers
- Cataloged Zinsmeister collection and updated the master database of specimens
- Documented and photographed Syracuse University collection journals

RESEARCH EXPERIENCE

Undergraduate Research Assistant, with Professor Matthew E. Pritchard May 2013 - May 2014
Department of Earth and Atmospheric Sciences, Cornell University, Ithaca, NY

- Applied remote sensing techniques, such as feature tracking, to study the Russian High Arctic
- Investigated effects of climate change on glacial velocities, calving rates, and ice shelf breakup
- Processed ASTER and Landsat satellite imagery using GMT, AROP, and ROI_PAC software
- Wrote Python, MATLAB, and Bash scripts to automate rapid processing of data
- Designed new method of noise removal based on the comparison of each pixel with its nearest neighbors

Undergraduate Research Assistant, with Professor Larry D. Brown August 2012 - May 2013
Department of Earth and Atmospheric Sciences, Cornell University, Ithaca, NY

- Studied the application of seismic interferometry to monitor magma reservoir inflation at Montserrat
- Researched effects of seismic attenuation on aftershocks
- Analyzed aftershock records from dense station arrays in Maine and Virginia

TEACHING EXPERIENCE

Teaching Assistant

May - June 2014

Department of Earth and Atmospheric Sciences, Cornell University, Ithaca, NY

- Served as a Teaching Assistant for Satellite Remote Sensing Training for Biological Oceanographers course
- Taught an intensive graduate course composed of 20 oceanographers from around the world
- Wrote Python lesson plan from scratch and answered questions about Python and IDL programming
- Debugged satellite image processing scripts and managed Python module installation from source code

Undergraduate Python Consultant

January - May 2014

Department of Computer Science, Cornell University, Ithaca, NY

- Helped teach Introduction to Computing using Python and Transition to Object-Oriented Programming
- Facilitated learning in a weekly lab session of 36 students, troubleshoot assignments, and graded exams
- Held weekly consulting hours, working one-on-one with students to help clarify course material

Undergraduate Teaching Assistant, PhysTEC Program

August 2012 - December 2013

Department of Physics, Cornell University, Ithaca, NY

- Taught course material for Introduction to Mechanics, Heat/Electromagnetism, and Oscillations, Waves, and Quantum Physics courses to 50+ students
- Led cooperative discussion and laboratory sections to promote understanding of physics material
- Coordinated homework study groups to encourage collaboration on homework assignments

Ecology / Conservation Director

Summers 2008 - 2012

Camp Barton, Boy Scouts of America, Trumansburg, NY

- Managed a department of 6 staff members, training them to become ecology counselors as well as leaders
- Instructed between 3 and 5 weekly merit badges to up to 30 boy scouts ranging in age from 10 to 18
- Rewrote lesson plans for all 20 merit badges, working with counselors to address various shortcomings
- Established new off-site ecology program, introducing scouts to advanced topics at outside organizations
- Maintained Camp Conservation Plan and oversaw conservation projects led by each Boy Scout troop

PUBLICATIONS

- Melkonian, A. K., Willis, M. J., Pritchard, M. E., & Stewart, A. J. (2016). Recent Glacier Velocities and Thinning at the Novaya Zemlya Icefield. *Remote Sensing of Environment*, 174, 244-257.

HONORS AND AWARDS

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| Frank H. T. Rhodes Award | 2014 |
| Michael W. Mitchell Prize | 2013 |
| Dean's List | 2010 - 2014 |
| Gertrude Spencer Prize Honorable Mention | 2011 |
| Lockheed Martin Foundation Scholarship | 2010 |
| Eagle Scout | 2008 |

OUTREACH AND LEADERSHIP EXPERIENCE

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| Mentor for New Visions Job Shadowing Program at Lockheed Martin | 2015 |
| Test Proctor for Cornell Science Olympiad Invitational | 2015 |
| President of Science of Earth Systems Student Association | 2012 - 2014 |
| Tae Kwon Do Team | 2011 - 2012 |
| Executive Board of Cornell Ski and Snowboard Club | 2010 - 2012 |
| Boy Scouts of America | 2002 - 2012 |
| Volunteer in Collections Department of Paleontological Research Institution | 2010 - 2011 |

COMPUTER SKILLS

Programming Languages

Python, Bash, Perl, Ruby, C, C#, Java, MATLAB, JavaScript, Make, Expect, Tcl, IDL

Markup Languages

LaTeX, Markdown, reStructuredText, HTML, CSS

Software

VCS: Git, CVS, GitHub, GitLab

CI: Travis CI, Flake8, Sphinx

Text Editors: Vim, Sublime Text, Visual Studio, Eclipse

Atlassian: Jira, Confluence, Crucible

Other: GNU Debugger, SoftEnv

Platforms

Linux (Fedora, RHEL, CentOS, Ubuntu, Mint), macOS, Windows