

J. Gregory Caporaso

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EDUCATION **Ph.D. in progress**, August 2004 – Present (projected completion: March 2009)
Department of Biochemistry, Program in Biophysics and Structural Biology
Advisor: Lawrence Hunter, Ph.D.
University of Colorado Denver, Aurora, CO
(Formerly U of C Health Sciences Center.)

B.A. in Biochemistry, Minor in Chemistry, August 2004

B.S. in Computer Science, May 2001

University of Colorado at Boulder, Boulder, CO

WORK EXPERIENCE *Research Assistant* **University of Colorado Denver**
Lawrence Hunter Laboratory *(formerly UCHSC)*
Aurora, CO **March 2005 – Present**

- Worked with lab members to develop new biomedical text mining research projects, execute research plans, and bring projects to completion through primary literature publication, presentation at conferences, and open-source software.
- Work lead to four peer-reviewed journal publications (three first-author), two non-peer-reviewed conference publications (both first-author), seven conference presentations (all first-author), and the open-source software package, *Mutation-Finder*, on which I am primary developer.

Research Assistant **University of Colorado at Boulder**
Rob Knight Laboratory **January 2003 – August 2004**
Boulder, CO **December 2006 – Present**

- Gained experience collaborating with wet-lab biologists, and working with team members to develop new molecular evolution research projects, execute research plans, and bring projects to completion through publication in primary literature, presentation at conferences, and published open-source software.
- Work in this lab lead to four peer-reviewed journal publications (two first-author), eight first-author conference presentations, and greater than 5000 lines of python code and tests in the open-source *PyCogent* package.

Software Engineer **Mercury Interactive**
Student Intern *(formerly Freshwater Software)*
Boulder, CO **January 2000 – March 2002**

- Worked as an intern until achieving Computer Science degree, at which point was promoted to full-time software engineer. As an intern, worked as a system administrator in the Network Operations Center (NOC); as a software engineer, worked as part of a twenty-person software development team building a Java solution for enterprise-scale network and server monitoring. Personally built five modules, and contributed to at least forty other modules, which were components of Freshwater's core product, SiteScope.

- Provided support for my tools to other developers, and top-tier technical support to customers. Gained experience with Java programming and testing, and administration of UNIX, Linux, and NT networks and servers.

Contract Web Developer

Boulder, CO

**American Business English
Internet School
1999 – 2002**

- Worked directly with chief officers to gather requirements and implement a multimedia online English as a Second Language (ESL) school in PHP. Was responsible for key decisions regarding programming languages, server types, website and e-mail hosting, and website design.

*Web Developer
System Administrator
Boulder, CO*

**Web Communications
University of Colorado at Boulder
1998 – 2000**

- Developed CGI software in Perl which was integrated into the high-traffic University of Colorado website, and assisted with administration of Linux and Mac OS servers throughout the office.

AWARDS AND
HONORS

Outstanding Research Award: *A Comparison of Coevolution Detection Methods on Protein Alpha Helices*; 22nd Annual Student Research Forum, University of Colorado Denver, January, 2008.

NLM Informatics Pre-Doctoral Training Fellowship: Selected by the faculty of the UCHSC Computational Bioscience Program to receive full funding, including tuition and stipend, for my pre-doctoral training. July 2007 – June 2009

Best Presentation: *A Sentence Recognizer for Mutant Protein Structure Studies: Toward Intelligent Systems for the Management of Structural Biology Data*; Rocky Mountain Regional Bioinformatics Conference, December, 2005.

SKILLS

Programming languages and software: Python, PyCogent (developer), PyMol, NumPy, Matplotlib, BLAST, HMMER, MutationFinder (developer), WEKA (machine-learning toolkit), SVMlight, libsvm, ClustalW, and Muscle. Some experience with R, Java, C/C++, MySQL, PostgreSQL, PHP, HTML/CSS, NCBI Eutils, L^AT_EX.
Operating systems: Mac OS X, Linux, Unix, Windows XP. Linux and OS X clusters.

SOFTWARE
PROJECTS

Primary developer MutationFinder <http://mutationfinder.sourceforge.net>
Developer PyCogent <http://pycogent.sourceforge.net>

References, CV, and code samples available upon request.