

Résumé of
Cristián Opazo

March 2, 2011

Work address:
Vassar College
124 Raymond Avenue
Poughkeepsie, NY 12604-0748
Phone: (845) 437-7866
E-mail: cropazo@vassar.edu

Home address:
111 Grand Street
Croton-on-Hudson, NY 10520
Home phone: (914) 271-0915
Mobile phone: (914) 260-2075
E-mail: opazo.cristian@gmail.com

Education:

Ph.D. (ABD), Physics (all coursework and examinations completed)
College of Natural Science, Michigan State University, East Lansing, Michigan.

M.Sc., Physics (2000)
College of Natural Science, Michigan State University, East Lansing, Michigan.

B.Sc., Physics (1996)
School of Sciences, University of Chile, Santiago, Chile.

Professional Experience:

July 2009 - present Senior Academic Computing Consultant.
Vassar College, Poughkeepsie, New York.

In this capacity, my current duties include:

- Design, develop and manage learning technology projects, leading teams of faculty members, librarians and students across academic departments
- Consult with faculty members on curricular development, assessment and evaluation, e-learning initiatives, project management, and grant proposals
- Conduct demonstrations and hands-on workshops for faculty, students and college administrators on topics such as scientific visualization, data analysis, multimedia development, digital literacy and online collaboration
- Manage the college's Scientific Visualization Laboratory, a state-of-the art, multi-platform computing facility dedicated to teaching and research across (and beyond) the science departments, supervising a staff of student assistants
- Negotiate and establish institutional level contracts and license agreements with software and hardware vendors
- Keep abreast of the latest developments in the field of educational technology and make recommendations that suit the needs and mission of the college

May 2006 - present Scientific Computing Consultant for URSI program.
Vassar College, Poughkeepsie, New York.

As part of the Undergraduate Research Summer Institute (<http://ursi.vassar.edu/>) at Vassar, a research program regarded as one of the best of its kind among liberal arts institutions in the United States, I

- Provide computing expertise to teams of faculty and student researchers performing data analysis, numerical simulations and scientific visualization
- Develop and conduct hands-on workshops on scientific computing, systems modeling, scientific typesetting and manuscript design
- Coordinate the design and production of posters for annual symposium

September 2000 - June 2009 Academic Computing Consultant for the Sciences.
Vassar College, Poughkeepsie, New York.

In this capacity, my duties included:

- Design, develop and manage learning technology projects, leading teams of faculty members, librarians and students among the natural science departments
- Conduct demonstrations and hands-on workshops for faculty, students and college administrators on topics such as scientific visualization, data analysis and multimedia development
- Manage the college's Scientific Visualization Laboratory, a state-of-the art, multi-platform computing facility dedicated to teaching and research across (and beyond) the science departments, supervising a staff of student assistants
- Keep abreast of the latest developments in the field of educational technology and make recommendations that suit the needs and mission of the college

May 1997 - August 2000 Research Assistant in Experimental High Energy Physics.
Fermi National Accelerator Laboratory (Fermilab), Batavia, IL.

Worked for the DØ experiment at Fermilab, the largest proton-antiproton collider in the world, as part of the Experimental High Energy Physics group at Michigan State University. I developed computer code for the Trigger Simulator, a large software project at the DØ collaboration.

Teaching Experience:

January 2011 - present Adjunct Lecturer, Department of Computer Science.
Vassar College, Poughkeepsie, New York.

Teach a course in Modeling and Simulation, which provides the mathematical and computational foundation required to perform work in a field that is now broadly referred to as computational science.

January 2006 - May 2010 Adjunct Lecturer, Department of Chemistry.
Vassar College, Poughkeepsie, New York.

Teach a course in Computational Methods in Chemistry, where chemistry and biochemistry majors learn the theoretical methods that run the sophisticated software tools for molecular modeling and simulations in materials and life sciences.

January 2001 - May 2010 Adjunct Lecturer, Department of Physics and Astronomy.
Vassar College, Poughkeepsie, New York.

Teach a course in Computational Methods in the Natural Sciences, where science majors learn to apply computing techniques and algorithms used in data analysis and visualization, and to develop scientific models and simulations of physical, chemical, and biological systems.

August 1997 - May 2000 Teaching Assistant, Department of Physics and Astronomy.
Michigan State University, East Lansing, Michigan.

While working towards my doctoral degree, I served as instructor in the following courses: undergraduate and graduate-level Classical Mechanics, Electricity and Magnetism, Quantum Mechanics and Statistical Mechanics.

March 1995 - December 1996 Teaching Assistant, Department of Physics.
University of Chile, Santiago, Chile.

While working towards my undergraduate degree, I served as instructor in the following courses: Introductory Physics laboratory and Electricity and Magnetism laboratory.

March 1993 - December 1994 Physics and Math Instructor for senior high school students.
University of Chile, Santiago, Chile.

While working towards my undergraduate degree, I served as instructor in physics and math for senior high school students taking the college admissions test (*equivalent to the U.S. SAT.*)

Project Development and Management:

- I serve as project manager for the **Dutchess Watersheds Project**, an ongoing collaboration between the Environmental Research Institute at Vassar College, Cornell University Cooperative Extension, and several local environmental advocacy groups, with the goal of developing an interactive website about the Hudson River watersheds in Dutchess County, New York. Built on the open-source CMS Joomla!, the site fosters community involvement and participation through environmental programs and related activities (*2008-present*). [<http://dutchesswatersheds.org/>]
- I serve as project manager for the **Environmental Risks and Breast Cancer Project**, a multimedia CD and website that explores the science linking breast cancer to the environment. The CD has been freely distributed to institutes and individuals in more than 100 countries around the world, and received extensive press coverage and an award by Breast Cancer Fund (*2004-2009*). [<http://erbc.vassar.edu/>]
- I am the co-producer of a series of videos created for the **Vassar Haiti Project**, a collaborative volunteer effort supporting the welfare of artists in Haiti and the education and nutrition of school children in the village of Chermaitre, Haiti (*2009*). [<http://projects.vassar.edu/haiti/>]
- I served as project manager for the campus-wide **Course Management System Migration** effort, recruiting relevant stakeholders on campus, researching and testing the software tools, reaching out other institutions, writing and publishing status reports, designing support materials and conducting training sessions(*2007-2009*). [<http://moodle.vassar.edu/>]
- I served as project manager for the **Underage Drinking Awareness Project**, a multimedia website and DVD for the Office of Health Education at Vassar, with the goal of raising awareness on issues related to underage drinking on a liberal arts campus. The project was awarded the *2007-2008 Excellence in Student Leadership Award* by Outside The Classroom (*2007-2008*). [<http://adminstaff.vassar.edu/cropazo/udap/>]

- I produced a series of **Instructional Videos for Organic Chemistry Labs**, as part of a curricular redevelopment effort by the Chemistry Department at Vassar. These videos were fully conceived, shot, and post-produced at Vassar College, with the participation of teaching faculty and film majors. These videos are distributed freely through our YouTube channel and have received hundreds of thousands of hits combined. I also lead the assessment effort aimed to evaluate the curricular impact of this video series, whose results are in the process of publication (2005-2006). [<http://youtube.com/scivislab/>]

Grants Received:

- Interdisciplinary Education Teams Fund, 2009, “Modeling and Simulations Across The Sciences.” Center for Collaborative Approaches to Science at Vassar College, \$7,000.
- Vassar College Research Fund, 2006, “Information Visualization and Visual Analytics for non-scientists”, \$2,500.

Committee Work:

- Planning Committee for Quantitative Reasoning Center, Vassar College [2008 - present]
- Planning Committee for Integrated Science Center, Vassar College [2007 - present]

Professional Organizations:

- Northeast Regional Computing Program (NERCOMP), member
- EDUCAUSE, member
- EDUCAUSE Learning Initiative (ELI), member

Computing Experience:

Extensive expertise with scientific software packages like **Mathematica**, **MATLAB**, **L^AT_EX**, and modeling applications like **COMSOL**, **STELLA**, and **Discovery Studio**. I am also fluent in **XHTML** and **CSS** web development.

Administration-level expertise of learning management systems: **Blackboard** (10 years) and **Moodle** (4 years), as well as several content management systems (**WordPress**, **Joomla!**, **Plone**, **Confluence**), managing *blogs*, *wikis* and other online services with multi-level workflow and serving thousands of users. Experienced user of social media tools such as **Twitter**, **LinkedIn**, **Facebook**, **Flickr**, **YouTube**, **WordPress** and **Quora**.

Fluency with digital publishing tools like **Photoshop**, **Illustrator**, and **InDesign**, and some experience with multimedia authoring tools like **Final Cut Pro**, **Autodesk Maya**, and **Flash**.

Languages:

English; Spanish (native speaker); basic German and French.