

# Amanda Gray

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## EDUCATION

M.Sc. Oceanography, University of Washington, Seattle, WA	expected Dec. 2009
Ocean Optics Summer School, University of Maine, Walpole, ME	2007
B.Sc. Physics, University of Washington, Seattle, WA	2006
B.A. Computer Science, <i>cum laude</i> , Smith College, Northampton, MA	1995

## RESEARCH INTERESTS

Autonomous underwater platforms and satellite-based remote sensing.  
Upper-ocean mesoscale and submesoscale dynamics; fronts and eddies.  
Interactions between dynamics and biological processes in subpolar and high latitude oceans.

## WORK EXPERIENCE

**Graduate Research Assistant, University of Washington** 2007 – present  
Adviser: Dr. Craig Lee  
Project: North Atlantic Spring Bloom Experiment 2008, Observations of an anticyclonic eddy on the flank of the Reykjanes Ridge with Seagliders, Lagrangian float and ship-based hydrography.

**Software Engineer, University of Washington** 2006  
Applied Physics Lab – Integrative Observational Platforms (Dr. Craig Lee, PI)  
  
Rewrote Perl server code in Python, added features to improve downstream data processing and publishing for Seaglider missions, wrote software wrapper for ADAM-6066 ethernet I/O unit.

**Undergraduate Research, University of Washington** 2005 – 2006  
Adviser: Dr. Gordon Watts  
  
Research in UW High Energy Physics - Fermi National Laboratory D0 experiment on single top particle production.

**Software Design Engineer** 2000-2001  
Spoke Technologies – Redmond, WA  
  
Implemented Zope-based community web site platform in Python. Wrote online documentation for preliminary releases in Microsoft Word and HTML.

**Software Design Engineer / SDE Test** 1995-2000  
Microsoft Corporation – Redmond, WA

- EasyLiving project in MS Research: Developed home automation system UI using XML. Windows NT:Public Key Infrastructure:Smart Cards: Designed and implemented UI features and cryptographic smart card integration with Windows 2000 Winlogon and Terminal Server. Created samples and documentation.
- Sidewalk Platform Dev Team: Implemented dynamic HTML renderer. Wrote MFC-based SQL client applications and InstallShield setup program for proprietary editorial tools.

- Visual C++ / MFC Quality Assurance: Wrote and evaluated technical documentation and sample applications, produced test specifications and applications, and tested ISAPI and WinInet wrapper classes.

Summer Intern: **Software Test Engineer** 1993, 1994

- Outlook 1.0, calendar module UI. Maintained C++ automated test tools.
- Works for Windows 3.0, hardware compatibility testing.

## SELECTED CONFERENCE PRESENTATIONS

Gray, A., C. Lee, E. D'Asaro, M. J. Perry, K. Fennel, N. Briggs, E. Rehm, B. S. Sackmann, M. Sieracki, N. Poulton, K. Gudmundsson: *The 2008 North Atlantic Bloom Experiment: Observations of an Eddy on the Eastern Flank of the Reykjanes Ridge*. (Poster) American Geophysical Union, Fall Meeting 2008. San Francisco, USA.

Perry, M. J., N. Briggs, E. D'Asaro, A. Gray, K. Gudmundsson, E. Kallin, R. Lampitt, C. Lee, N. Poulton, E. Rehm, T. Rynearson, M. Sieracki: *Optical observations of large diatoms and sinking particles during the North Atlantic spring bloom made from ship, floats, and Seagliders*. (Poster) Ocean Optics XIX, 2008. Tuscany, Italy.

Randolph, K., I. Cetinic, S. Woods, A. Gray: *Ocean Optics 2007 Class Project: in situ optical and radiometric data accuracy assessment and optical closure*. (Poster) Ocean Optics XIX, 2008. Tuscany, Italy.

Gray, A., I. Cetinic, S. Woods, K. Randolph: *Ocean Optics 2007 class project: Inherent optical properties of the Damariscotta River Estuary: what is happening at the river-sea interface?* (Poster) Ocean Optics XIX, 2008. Tuscany, Italy.

Gray, A., E. D'Asaro, C. Lee, M. J. Perry, K. Fennel, N. Briggs, E. Rehm, B. S. Sackmann, K. Gudmundsson: *The North Atlantic Bloom Experiment 2008: Observing Carbon Fluxes with Autonomous Platforms NAB08*. (Poster) UW Program on Climate Change, Summer Institute 2008. Friday Harbor, WA, USA.

Gray, A., E. A. D'Asaro, R. Harcourt, S. Johnston, C. M. Lee, D. L. Rudnick: *AESOP 2006: Submesoscale observations of restratification at a front in the California Current with a Lagrangian float and towed profilers*. (Poster) American Society of Limnology and Oceanography, Ocean Sciences Meeting 2008. Orlando, USA.

Gray, A., G. Watts: *Asymmetry in Muon Pseudo-Rapidity and the Search for Single Top Quarks at the Tevatron*. (Oral) American Physical Society Northwest Regional Conference 2006, Tacoma, WA, USA.

Gray, A.: *Asymmetry in Muon Pseudo-rapidity in Backgrounds and Signals of Single Top Search*. (Poster) Sigma Xi Annual Meeting and Student Research Conference 2005, Seattle, WA, USA.

**\*Superior-judged Student Poster**

## FIELD EXPERIENCE

- 2009 – M/V *Indigo*, Service Education and Adventure, F. Stahr (UW). Ocean Inquiry Project (OIP), hydrography and science outreach, 1 day.
- 2009 – R/V *Jack Robertson*, C. Lee (UW-APL). Integrative Observational Platforms (IOP) instrument testing, hydrography, and science outreach, 1 day.
- 2009 – R/V *Thomas G. Thompson*, J. Newton (UW-APL). Puget Sound Regional Synthesis Model (PRISM) in Puget Sound (WA Department of Ecology), hydrography, 2 days.
- 2008 – R/V *Thomas G. Thompson*, F. Stahr (UW). OIP, hydrography and science outreach, 1 day.
- 2008 – R/V *Bjarne Saemundsson*, M. J. Perry (UMaine). Instrument recovery and hydrography, 4 days.
- 2008 – R/V *Knorr*, M. J. Perry (UMaine). North Atlantic Spring Bloom 2008, autonomous platforms, biological and chemical studies and hydrography, 21 days.
- 2006 – R/V *Miller*, J. Gobat, IOP instrument testing, 1 day.
- 2006 – R/V *Thomas G. Thompson*, M. Kawase (UW), J. Newton (UW-APL). PRISM, hydrography, 4 days.

## PROFESSIONAL SOCIETIES

American Geophysical Union  
Sigma Xi (Associate)

## SERVICE

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|--|----------------|
| Surfrider Organization, Seattle Chapter: Blue Water Task Force<br>Lab coordinator for water quality testing to augment WA DoE/DoH BEACH program. | 2009           |
| UW School of Oceanography<br>Graduate student faculty meeting reporter.  | 2008 – present |
| Ocean Inquiry Project<br>Volunteer instructor.   | 2008 – present |
| Seattle Girls School<br>Mentor, homework center tutor.   | 2007 – present |
| PrivacyActivism.org, San Francisco, CA<br>Legal research extern (pro-bono internship), volunteer program manager.                                | 2002-2003      |