

Erik Abrahamsson

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Summary of qualifications

- Strong background in computation, simulation, and programming.
 - Strong pedagogical skills, with long teaching experience, and student supervision.
 - Excellent communicator with highly developed writing and presentation skills.
 - Interculturally competent, fluent in Swedish and English, novice in German and Spanish.
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Work experience

2008-04 – 2010-03 **Post-doctoral fellow**, Theoretical Biophysics, Department of Physics and Astronomy, University of British Columbia, Vancouver, Canada.
Coarse grained molecular simulations and visualization of DNA dynamics.

- Developed molecular visualization program published in peer-reviewed journal.
- Developed extensions to existing molecular dynamics software.
- Training in team building.
- Scholarships from the Sweden-America Foundation, and the Olle Engqvist Foundation.

Programming skills

- Advanced skills in FORTRAN, C/C++, MATLAB.
 - Intermediate skills in OpenGL, MPI, OOAD.
 - Basic skills in Java, Perl, Python, OpenMP.
 - Experienced with Windows, Linux, and OS X, as well as with computer clusters and supercomputers.
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Education

2002-01 – 2008-04 **PhD, Physical Chemistry and Scientific Computation**, Department of Chemistry, University of Gothenburg, Sweden.
Quantum mechanical calculations of reaction dynamics.

- Accepted to the Swedish Research Council's National Graduate School of Scientific Computation (NGSSC).
- Studied parallel programming and supercomputing, computer science, visualization, and numerical analysis at Uppsala University, Umeå University, and KTH.
- Developed software for quantum mechanical calculations and analysis.
- First University of Gothenburg graduate student to receive grants from NGSSC.
- Seven publications in peer reviewed journals.

2006-04 – 2007-04 **Visiting researcher, Theoretical Chemistry**, University of British Columbia, Canada.
Quantum mechanical calculations of ultra-cold chemistry.

- Strong collaborations with some of the leading researchers in the field.

Erik Abrahamsson

1995-08 – 2002-01 **MSc, Chemical Engineering and Engineering Physics**, Chalmers University of Technology, Sweden.

- Majors: Quantum physics, physical chemistry.
- Minors: Numerical analysis, programming, chemical engineering.

1999-01 – 1999-12 Griffith University, Australia.

- Java, spectroscopy, biochemistry, amongst other courses.
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Teaching experience

2009-08 – 2010-01 Undergraduate student supervisor, University of British Columbia.

- Supervised Engineering Physics co-op work-study student in the project '*Computational models of DNA*'.

2002-01 – 2008-04 Teaching assistant, Göteborg University.

- Instructed laboratory classes of 10-15 undergraduate students at 1st year level in chemistry.
 - Taught classes of 20-25 undergraduate students, and instructed laboratory classes of 5-10 undergraduate students, at 3rd year level in physical chemistry.
 - Consistently received high evaluation ratings in student feedback.
 - Special training in group dynamics and leadership for pedagogics.
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Extracurricular work

- **First Aid Officer**, Department of Physics and Astronomy, University of British Columbia, 2009-2010.
 - **Postdoc Association**, University of British Columbia, 2009 – 2010. Organized events for post-doctoral fellows at UBC.
 - **Chemistry Graduate Student Council**, University of Gothenburg, 2002 – 2006.
 - Engaged in a wide variety of **student union organizations**, Chalmers University of Technology, 1995 – 2002.
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Military service

1994-06 – 1995-07 **Skyddstekniker**, Totalförsvarets Skyddsskola, Umeå. NBC & Fire specialist.

- Training include: Biological effects of radiation, hazardous chemicals, and drugs, immunology, group dynamics, and leadership.
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Hobbies and interests

Downhill skiing, mountain biking, music and dancing, hiking, martial arts, board games, movies, computers and technology, politics and current affairs.
