

Christopher Ing

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Education

University of Waterloo

Sept 2004 – April 2009

Bachelor of Science.

- Honours Co-Op Computational Science Specialization in Physics.

University of Waterloo

Aug 2009 – Aug 2011

Masters of Science.

- Honours Physics in Chemical Physics, with Pierre Nicholas Roy and Wing-Ki Liu.

Experience

Roy Research Group, University of Waterloo

April 2009 - Present

- Adding support for path-integrals in MMTK molecular dynamics software using **Python**.
- Using this tool to research quantum effects in biological systems.

Google Summer of Code Developer, KDE

April 2009 – Aug 2009

- Implementing a real-time fluid simulation algorithm in a physics education software package using **C++/Qt**.

Chen Research Group, University of Waterloo

September 2008 – April 2009

- Implemented numerical integration and monte carlo algorithms in **C** on Sharcnet computing cluster.
- Planned and contributed to a research paper in LaTeX with colleagues, in preparation for publication.

Radiation Laboratory, University of Notre Dame

May 2008 -August 2008

- Used a **Fortran/Gaussian** workflow for performing electronic structure research of hydroxyl water clusters.
- Presented research at the Canadian Undergraduate Physics Conference 2008.

Cardiac Imaging Group, Sunnybrook Hospital

Sept 2007 -Dec 2007

- Contributed to a **C++** project for real-time MR imaging by adding multi-slice multi-FOV catheter tracking.
- Developed on Linux platform with open-source tools such as Eclipse, Bugzilla, CVS, and GDB.

Bioinformatics Group, Microarray Center

Sept 2006-April 2007

- Developed a statistical research tool in **C#** for visualizing gene ontology in expression data sets.
- Wrote **Perl** scripts for sequence alignment, annotation of genes, and **MySQL** database integration.

Publications

- **Adhesion of cylindrical colloids on the surface of a membrane**, *Sergey Mkrtychyan, Christopher Ing, and Jeff Z. Y. Chen*, Physical Review E, (accepted December 17th, 2009)

Additional Skills

- **Mathematica**, and **MatLab/Octave** course experience with finite difference methods for ODE / PDEs.
- 3+ years DJing experience electronica, hip-hop, dance for social events.
- 5+ years experience in **Adobe Photoshop** and **Adobe Illustrator** for digital painting, vector illustration, web design, scientific figures, published advertising.