# Jonny Johannes

SOFTWARE ENGINEER

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## Industry Experience

**Wayfair**                                                            *Boston, MA, USA*
SOFTWARE ENGINEER                                                      *January 2019 - Present*
- platform design for processing and persisting high-volume customer data in batch and real-time
- distributed system development to deliver data with low latency and high availability
- technologies: java, python, apache [spark, hadoop, hive, kafka, flink, airflow], gcp: [gke, dataproc, gcs, gbq], unix/linux

**AppColony**                                                         *Calgary, AB, Canada*
SOFTWARE DEVELOPER                                                     *April 2014 - December 2018*
- back end development and design of production infrastructure and architecture for mobile and web clients
- front end development of interactive web applications and user interfaces
- agile development working and communicating closely with design and client-facing teams
- technologies: unix, mac os, vim, tmux, zsh, postgresql, git, ruby, javascript, html, css, heroku, aws

**StaffingExperts Solutions Inc.**                                    *Calgary, AB, Canada*
APPLICATION DEVELOPER                                                  *September 2012 - April 2014*
- back end development for aggregation and analysis of data from: google apps api, audio files, and message logs
- front end reporting tool for displaying processed data
- technologies: linux, php, yii, mysql, git, javascript, html, css

**Foodtree**                                                          *Vancouver, BC, Canada*
DEVELOPER AND DATA ANALYST                                            *July 2010 - March 2012*
- back end and api development for mobile and web applications
- front end development of web and ios applications
- data analysis extracting user trends on mobile, web, and database usage
- technologies: ruby, rails, goliath, mysql, git, javascript (jquery), html, css, heroku, chef, aws

## Research Experience

**University of Calgary, Institute for Quantum Science and Technology**    *Calgary, AB, Canada*
M.SC. THESIS, DR BARRY SANDERS AND DR DENNIS SALAHUB                       *January 2013 - January 2016*
- quantum *ab initio* calculations of partial charge distribution for electron transfer moiety
- classical molecular dynamics simulations of protein-water system
- statistical analysis of simulation trajectories to compute electron transfer energy parameters
- technologies: linux, westgrid (high performance computing), python, charmm, demon, namd, vmd, delphi

### University of Alberta, Condensed Matter Physics

RESEARCH ASSISTANT, DR KIM CHOW AND DR JAN JUNG

*Edmonton, AB, Canada*

*September 2011 - May 2012*

- synthesize materials of ruthenium-doped manganites with colossal-magnetoresistance properties
- measure the material's response to a varying magnetic field in a strong electromagnetic generator
- data analysis determining critical temperature for phase change
- technologies: linux, python

### University of British Columbia, Quantum Degenerate Gases Lab

B.Sc. HONOURS THESIS, DR KIRK MADISON AND DR JIM BOOTH

*Vancouver, BC, Canada*

*September 2009 - May 2010*

- engineer and machine hardware for peripheral electronics of laser-ablated gold micro wires
- measure mechanical and electrical response of micro wires as a function of current density
- matrix analysis of electron micrographs of wires
- technologies: unix, python, tektronix, matlab, mathematica

### University of Calgary, Institute for Biocomplexity and Informatics

RESEARCH ASSISTANT, DR SERGEI NOSKOV

*Calgary, AB, Canada*

*May - August 2008 and 2009*

- quantum calculations for ground state energy and configuration of halothane ($C_2HBrClF_3$)
- fitting and parametrization of halothane to classical potential functions
- simulation of halothane with novel parameters in water and methanol for comparison with empirical data
- technologies: linux, westgrid (high performance computing), python, charmm, gaussian

## Education _____

### University of Calgary

M.Sc. PHYSICS, COMPUTATIONAL QUANTUM PHYSICS AND CHEMISTRY

*Calgary, AB, Canada*

*January 2013 - January 2016*

### University of British Columbia

B.Sc. PHYSICS, HONOURS BIOPHYSICS

*Vancouver, BC, Canada*

*September 2006 - May 2010*

## Papers and Publications _____

**Johannes, J.** Bridging the gap between the theoretical and empirical reorganization energy. *Masters Thesis*. **2016** (unpublished).

Subbotina, Y.; **Johannes, J.**; Lev, B.; Noskov, S. Halothane Solvation in Water and Methanol From Simulations with New Polarizable Potential Function. *J. Phys. Chem. B.* **2010** *114* (19), 6401-6408.

**Johannes, J.** Characterization of the Electrical and Physical Properties of Gold-on-Glass and Gold-on-Silicon Micro Wires Under High Current Stresses. *Undergraduate Thesis*. **2010** (unpublished).

## Honors & Awards _____

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| Alberta Graduate Student Scholarship, University of Calgary | *2015* |
| Department of Physics Graduate Student Excellence Award, University of Calgary | *2014* |
| AHFMR Summer Student Research Award, University of Calgary | *2009* |
| NSERC Undergraduate Student Research Awards, University of Calgary | *2008* |
| President's Entrance Scholarship, University of British Columbia | *2006* |