

# Kevin Chow

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## Education

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### Academic Qualifications.....

- **Simon Fraser University** **Burnaby**  
*MSc, Applied Mathematics, GPA: 4.06/4.33* *2014–2016*  
*Thesis: Linearly Stabilized Schemes for the Time Integration of Stiff Nonlinear PDEs*
- **University of Waterloo** **Waterloo**  
*BMath, Double Major in Applied Math and Statistics, Dean's Honours List* *2010–2014*

### Notable Projects.....

- **Masters Thesis:** *‘Linearly Stabilized Schemes for the Time Integration of Stiff Nonlinear PDEs’*  
Derived and analyzed a collection of new algorithms that are applicable to tasks in image processing, resolving interfacial dynamics, evolving phase separation methods, etc. These new algorithms are competitive with/improve upon current methods. New ideas were contributed to the understanding of linearly stabilized schemes.
- **Compressed sensing course project:** *‘Survey of Results in Compressed Sensing using Total Variation Minimization’*  
The project focusses on the use of the TV seminorm and TV minimization in compressed sensing for signal and image processing. Theoretical results were examined numerically, with a particular focus on the recovery of corrupted images using the split Bregman algorithm. This one semester project required that I become fluent in the language of compressed sensing; the survey covered a number of results from current research papers.
- **Computational fluid dynamics course project:** *‘Adaptive moving mesh methods’*  
For this project, I built a wiki page providing theory, examples, and codes for using adaptive moving mesh methods in a computational fluid dynamics setting. In particular, I take examples usually requiring a high number of (uniform) grid nodes and solve to high accuracy using a small number of adaptive nodes.

### Awards.....

- **2016 SFU Symposium on Math and Computation Poster Competition:** *Winner*  
Presented the results of my research to a number of judges (experts and non-experts) and was awarded top prize. Evaluation was based on clarity of communication, response to questions, and the novelty and quality of the research.
- **Graduate Fellowship:** *\$5,000*  
Awarded for strong academic performance and research potential.

## Technical and Personal skills

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- **Programming Languages:** C, Matlab, Python, TeX
- **General Business Skills:** Exceptional presentation skills; clear and concise written reports

## Previous Employment

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- **Simon Fraser University** **Burnaby**  
*Research Assistant* *May 2016–Aug 2016*  
*May 2015–Aug 2015*

Over these terms I developed the core of the theory behind the algorithms that I proposed in my masters thesis. The work spans coding and testing, as well as providing a detail understanding as to where these algorithms perform best.

- **Simon Fraser University – Math Department** **Burnaby**  
*Teaching Assistant* *Sept 2016–Dec 2016*  
*Sept 2015–Apr 2016*  
*Sept 2014–Apr 2015*

As a teaching assistant, I have had the opportunity to host workshop hours, where students may attend to receive additional instruction, and held the responsibility of conducting tutorials. I have consistently received outstanding reviews from both my supervisors and my students for the clarity of my explanations, patience and positivity, preparedness and punctuality.

- **University of Waterloo** **Waterloo**  
*Marker* *Sept 2013–Dec 2013*  
*Sept 2012–Apr 2013*

During my studies as a full-time undergrad, I worked as a marker grading weekly assignments for first and second year courses, responsible for providing useful and timely feedback.

- **University of Waterloo** **Waterloo**  
*Research Assistant* *May 2013-Aug 2013*

I spent a term during my undergrad exploring topics in numerical solutions to PDEs. This truly humbling experience led me to continuing my education at SFU.