

# Jamie Starke

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## CONTACT

### INFORMATION

*E-mail:* cv@jamiestarke.com  
*WWW:* www.jamiestarke.com  
*Current City:* Victoria, BC, Canada

## CITIZENSHIP

Canadian

## INTERESTS

DevOps and Automation, Web-based Systems, Human-Computer Interaction, Software Engineering, Tool Support.

## TECHNICAL SKILLS

**Programming:** Amazon Web Services, Terraform, AWS CloudFormation, TypeScript, Python, JavaScript, Ruby, Chef, HTML, SQL, UNIX shell scripting, Git, SVN, and others

**Operating Systems:** Mac OS X, Linux, Microsoft Windows, and other UNIX variants

**Applications:** IntelliJ, Visual Studio Code, L<sup>A</sup>T<sub>E</sub>X, Microsoft Office, and other common productivity packages for Windows, OS X, and Linux platforms

## EXPERIENCE

### **Workday**, Victoria, BC Canada

*Software Development Engineer, DevOps*

**January 2018 to Present**

- Led a project to improve the efficiency of regular weekly application deployments for services hosted on Amazon Elastic Container Service using an automated deployment pipeline.
- Active role in the migration of an application from multiple data centers to AWS, including planning the migration of databases and ensuring the proper connectivity from the data centers.
- Created a solution to allow easy peering and routing between VPCs with shared resources, using a lambda to accept peering connections from whitelisted AWS accounts, and add peered VPCs to route tables.
- Created a reusable Terraform module for managing an EC2 Container Service Cluster and ensuring zero downtime during instance modifications.

### **Giftbit**, Victoria, BC Canada

*DevOps Engineer*

**June 2016 to January 2018**

- Achieved a consistent Infrastructure as Code model for the infrastructure of the newer Lightrail product using CloudFormation. New resources and permissions would be deployed through the development, staging and production environments by performing a pull request which triggered a CodePipeline to consistently deploy and configure each environment.
- Created a fast and consistent way for developers to deploy service changes using deployment scripts, reducing deployment times for new functionality from hours to minutes.
- Devised and implemented new security protocols to ensure the security of application secrets.

**SilkStart Technology**, Victoria, BC Canada

*Lead Full-Stack Developer*

**May 2014 to May 2016**

- Led the development on a major architectural change to support multi-chapter associations, which provide significantly increased monthly recurring revenue.
- Built a consistent model of the servers using Chef recipes and configurations to automate setup, configuration and deployment of the infrastructure, enabling the easy replacement of servers in a matter of minutes. This also supported easily switching infrastructure providers.
- Transitioned the infrastructure from Linode to Amazon Web Services to take advantage of considerable service credits and gain access to advanced functionality.
- Developed a continuous integration pipeline using Jenkins, Docker, Packer and Chef to automate consistent testing and facilitate automated deployment to a staging environment.
- Used and guided efforts to use advanced techniques for componentization to create features that were more easily extensible and testable.

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**Seeker Solutions**, Victoria, BC Canada

*Software Developer*

**January 2014 to April 2014**

- Rapidly integrated into a scrum team to develop and integrate new features in a web application to survey surgical patients, built in GWT and Java.
- Identified issues with our existing technical stack, and provided insights into a complete stack transition.
- Investigated new toolsets that would enable faster development and deployment of new features.
- Coordinated efforts and mentored developers on the use of Twilio to provide SMS and telephony functionality.
- Promoted mobile first development, and focused on mobile efficiency and usability.

**Latitude Geographics**, Victoria, BC Canada

*Software Developer*

**September 2012 to January 2014**

- Developed a native mobile application using PhoneGap (JavaScript) and Xamarin (C#) to provide native device functionality to HTML5 based web applications.
- Developed and integrated new features for a number of applications, written in C#, JavaScript and TypeScript.
- Improved the development process and code base maturity through the promotion and use of code reviews and architectural discussions.

**University of Victoria**, Victoria, BC Canada

*Research Assistant*

**July 2010 to July 2012**

- Supervisor: Margaret-Anne Storey
- Researched a number of social tools used by software engineers
- Developed research tools to assist with data collection and analysis.
- Utilized a number of data mining techniques to help identify subpopulations of interest.

**Student Geeks Inc.**, Calgary, AB Canada

*Co-owner and Onsite Technician*

**October 2005 to June 2010**

- Managed company operations, budgets and expenses through detailed spreadsheets of company activities.
- Instructed clients in using new systems and software.
- Analyzed and diagnosed client technology issues and implemented solutions to provide positive client experience.
- Ensured client needs and expectations were met in a polite and efficient manner.
- Displayed self-management, discipline, initiative and success through company initialization and operation for over four years.

**The University of Calgary**, Calgary, AB Canada

*Research Assistant*

**May 2007 to June 2010**

- Supervisor: [Jonathan Sillito](#)
- Researched and prototyped new search techniques for software modification
- Developed a plug-in for the Eclipse Integrated Development Environment which utilized the Standard Widget Toolkit and Java Development Toolkit frameworks.
- Worked with a small team using the Eclipse Integrated Development Environment and Subversion for team integration.
- Developed a web-based tool called *Scrutinize* that utilizes a Django web server and Python back-end with a Flex/Actionscript user interface to make a tool that allows users to understand how the project is changing and who has made those changes.

*Teaching Assistant*

**September 2008 to April 2010**

- Instructors: [Jonathan Sillito](#), [Ben Stephenson](#)
- Courses: SENG 301: Analysis and Design of Large-Scale Software I, CPSC 217: Introduction to Computer Science for Multidisciplinary Studies I
- Instructed bi-weekly laboratories on the analysis of requirements, through design, implementation and testing, with emphasis put on individual skills.
- Graded students' assignments.
- Prepared examples to aid in student understanding

*Undergraduate Researcher*

**June 2007 to August 2007**

- Supervisor: [Jonathan Sillito](#)
- Development of a code exploration tool called the [Code Set Tool](#).
- The [Code Set Tool](#) is an Eclipse plug-in that collects possible code elements of interest, and allows programmers to combine the sets to answer higher level meaningful questions about the source code.
- Performed a small user study and analysis of the screen recording and audio to evaluate the effectiveness and usefulness of the tool.

EDUCATION

**University of Victoria**, Victoria, BC Canada

Ph.D., Computer Science, July 2012 (Incomplete)

- Advisor: [Professor Margaret-Anne Storey](#)
- Relevant Courses: Computer Supported Collaborative Work, Data Mining
- Cumulative GPA: 9.0 of 9.0

**University of Calgary**, Calgary, AB Canada

M.Sc., Computer Science, November 2010

- Thesis Topic: Finding What is Important: Understanding and Improving Source Code Search
- Advisor: Assistant Professor Jonathan Sillito
- Relevant Courses: Qualitative Research Methods in Software Engineering, Research Methods in Human-Computer Interaction, Information Visualization, Interactive Tabletops and Surfaces
- Cumulative GPA: 4.0 of 4.0

B.Sc., Computer Science, November 2008

- *With Distinction*
- Relevant Courses: Software Development in Teams and Organizations, Human-Computer Interaction, Web-Based Systems, Data Base Management Systems
- Cumulative GPA: 3.6 of 4.0

DEVELOPMENT  
ACHIEVEMENTS

**Geocortex Mobile App Framework** - 2013

An App Framework that enables the hoisting of an HTML5 based web-application into a mobile app, to provide additional functionality, such as processing of large data files like map tile packages. This framework was build using Xamarin and Phonegap, and supported iOS, as well as Windows 7 and 8. Based on the design of a common Xamarin and C#, large components and the functionality could be shared between the different platforms.

**BusTimes** ([bustimes.jamiestarke.com](http://bustimes.jamiestarke.com)) - 2012

A Web-based Application to help transit commuters find their next bus. Combines rentals from a number of different sources and displays them on a map of Victoria, as well as the transit lines running to and from the University of Victoria.

**Victoria Rental Map** ([victoria.rentalmap.jamiestarke.com](http://victoria.rentalmap.jamiestarke.com)) - 2012

A Web-based Application to help UVic students with the painful apartment hunt. Combines rentals from different sources and displays them on a map of Victoria, as well as the transit lines running to and from the University of Victoria. This project has a Coffee-script and d3.js front-end, and Python back-end using flask and sqlalchemy frameworks.

**My Representatives** - 2012

A Windows Phone app that enables users to easily keep track of Members of Parliaments actions. Users can easily select a member of parliament by postal code, or by utilizing their phones' location. Each member of parliaments listing contains basic contact information, as well as a stream of their actions, such as speeches or votes in the House of Commons, mentions in the news, or their announcements on Twitter.

**Victoria Weather** - 2012

A Windows Phone app that allows users to more easily utilize local weather area in the Victoria area. This App allows users to easily select weather stations, add them to their favourites, and find the current conditions.

**TweetSeeker** - 2011

This was a tool written in Python to help with the investigation and analysis of tweets. It would allow users to refine the tweets of interest. The version released on app engine only supported refinement by date.

### Scrutinize - 2008

This is a web-based tool written in python using the django framework and flex, designed to help project team members understand how the project is changing, and who is making those changes.

#### CONFERENCE PUBLICATIONS (AVAILABLE ON WEBSITE)

Gargi Bougie, Jamie Starke, Margaret-Anne Storey and Daniel German. 2011. *Towards Understanding Twitter Use in Software Engineering: Preliminary Findings Ongoing Challenges and Future Questions*. In Proceedings of the 2nd International Workshop on Web 2.0 for Software Engineering.

Jamie Starke. 2010. *Finding What is Important: Understanding and Improving Source Code Search*. Master of Science thesis, Department of Computer Science, University of Calgary, July 2010.

Jamie Starke, Chris Luce and Jonathan Sillito. 2009. *Searching and Skimming: An Exploratory Study*. In Proceedings of the IEEE International Conference on Software Maintenance. pp. 157-166.

Jamie Starke, Chris Luce and Jonathan Sillito. 2009. *Working with Search Results*. In Proceedings of the 1st International Workshop on Search-driven development: Users, Infrastructure, Tools and Evaluation. pp. 53-56.

Chris Luce, Jamie Starke, Tom Zimmermann and Jonathan Sillito. 2008. *Scrutinize: Exploring a Project's Revision History*. Appeared as a video at the ACM conference on Computer Supported Cooperative Work.

Fraser, C., Luce, C., Starke, J., Sillito, J. 2008. *Tool support for working with sets of source code entities*. In Proceedings of the IEEE Symposium on Visual Languages and Human-Centric Computing. pp. 73-77.

#### PRESENTATIONS

Jamie Starke. *Searching and Skimming: An Exploratory Study*. Presented at the IEEE International Conference on Software Maintenance. 2009.

Jamie Starke. *Working with Search Results*. Presented at the 1st International Workshop on Search-driven development: Users, Infrastructure, Tools and Evaluation. 2009.

Starke, J. *Tool support for working with sets of source code entities*. Presented at the IEEE Symposium on Visual Languages and Human-Centric Computing. 2008.

#### AWARDS

##### Academic

- Alexander Graham Bell Canada Graduate Scholarship - Doctorate, 2010
- Department Research Award, Department of Computer Science, 2009
- NSERC Postgraduate Scholarship - Masters, 2008
- Department Research Award, Department of Computer Science, 2008
- Dean's Research Excellence Award, Faculty of Graduate Studies, 2008
- Dean's List, Faculty of Science, 2008
- Archie and Hugh Bothner Bursary, 2007
- Student Peer Assistance Undergraduate Bursary, 2007
- Jason Lang Scholarship, 2007

ACADEMIC  
PROJECTS

**University of Victoria**, Victoria, BC Canada

*Understanding the use of Micro-blogging in Software Engineering*

This project investigates how software developers use micro-blogging. We find that the Software Engineering community extensively leverages Twitter's capabilities for conversation and information sharing and that use of the tool is notably different between distinct Software Engineering groups.

**University of Calgary**, Calgary, AB Canada

*Understanding Searching Behaviour*

When performing Program Modification tasks, some amount of searching is usually involved to find where the change should be made. Little is known about programmers use the search tools built into today's Integrated Development Environments. This project looks at how developers actually search through the source code of a project to which they are new.

*Tavolo*

Tavolo is a digital tabletop application for conferences. Using digital tabletop techniques, Tavolo allows participants of a conference to easily view, share, and annotate documents, images, and videos. This application was developed for the Microsoft Surface using the WPF Framework.

*Scrutinize*

Scrutinize is a web based tool designed to take information from a source code repository, and present it in a way that allows project team members to learn about how the project has been changing and who has made those changes.

*Code Set Tool*

The code set tool is a prototypical research tool that assists programmers with answering the questions they have about the code base. The Code Set tool works with an Integrated Development Environment and returns to the user sets of source code entities.

VOLUNTEER  
WORK

Organizer, DevOpsDays Victoria, 2018

- Building sponsoring prospectus to give to potential sponsors, describing our sponsorship tiers, and the benefits of each.
- Modifying site to consistently display sponsors based on their sponsorship level.
- Setting up and managing a social media presence for the conference.

Marketing and Member Engagement, Whisky Oriented Development, 2014–2018

- Strategizing and implementing member engagement efforts, through direct contact and social media marketing.
- Created the Whisky Oriented Development website, to enable easy dissemination of our events, and member information.
- Helped with the organization and running of our tasting and networking events.

Student Life Liaison, Computer Science Graduate Students' Association, 2011–2012

- Began initial work to create the Graduate Students' Association.
- Created the CSGSA website, to allow graduate students to facilitate communication, and gather useful graduate student resources.
- Started a weekly tea to foster graduate student socialization and cross-lab discussion.

Vice President of Internal Relations, [Computer Science Graduate Society](#), 2009–2010

- Organizing and/or providing representation for graduate students on a number of Department committees, including:
  - Department meetings
  - Undergraduate Affairs Committee
  - Hiring Committee

Student Volunteer Coordinator, [Interactive Tabletops and Surfaces](#), 2009

- Organizing of student volunteers for the conference.
- Coordinating the smooth operations of the associated events at the conference.

Student Volunteer, [International Conference on Software Engineering](#), 2009

- Helping with operations of the conference, including registration.

Laboratory Representative, Laboratory Representative Committee, [Computer Science Graduate Society](#), 2008–2009

- Representing the students of my Laboratory to the Computer Science Graduate Society
- Providing feedback on CSGS initiatives and events

Vice President of Events, [Computer Science Undergraduate Society](#), 2007–2008

- Planning and organizing of events
- Communicating with external organizations for joint events
- Advertising events to the students through both posters and online means
- Planning several large parties throughout the year to bring Computer Science Students together, and give them to mingle in a more casual environment

PERSONAL  
INTERESTS

This is a list of some of my many hobbies:

- Many things having to do with computers:
  - Using Program and DevOps skills to solve practical problems
  - Experimenting with new technologies and tools
- Games (video games, board games, card games)
- Community Organization
- Hiking
- Backpacking