**C. Albert Thompson**

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| **EDUCATION** |  | **Research Area** |
| **University of British Columbia:** | MS. Computer Science Degree: Fall 2017 | Recommendation Systems |
| **University of California Irvine:** | B.S. Computer Science Degree: Fall 2010 | Code Extraction from Web Test Suite Analysis |

**SKILLS**

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| **Computer Languages:** | Java, Python, .Net, C/C++, Ruby |
| **Web Languages:** | JavaScript, TypeScript, Coffeescript, PHP, HTML, CSS |
| **Frameworks:** | Angularjs, Angular 2/4, Ionic 1/2/3, Rails, jQuery, Node.js |
| **Software:** | Apache, Tomcat, GIT, SVN, Unix/Linux, Windows, Mac OSX |
| **Databases:** | MySQL, JDBC, NoSQL |
| **Foreign Language:** | Proficient in Italian and Spanish. |

**WORK EXPERIENCE**

**Full Stack Developer, Many Roads Studio**

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| Remote | 2017-Present |

* Developed a social health app to help patients recover from addiction, suicide, and depression
* Created a mobile app using the ionic framework
* Participated agile activities including, a daily scrum, and helped assign tasks for iterations
* Architected framework and API for remote server calls

**Research in recommendation systems, University of British Columbia**

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| Vancouver, Canada | 2011-2017 |

* Gathered over 1 million from multiple sources for machine learning, and Natural Language Processing (NLP)
* Extracted, parsed and manually tagged large datasets
* Created predictive algorithms using WEKA API (a machine learning tool) and large data sets
* Identified ways to NLP to improve predictive algorithms
* Read relevant research topics and recreated their techniques to compare results
* Developed a prototype application to display differences of UML models

**Software Modeler, General Motors**

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| Warren, MI | Summer 2013 |

* Developed software model in Rhapsody
* Created a process to daily run regression tests and code validation
* Researched how developers program with models

**Software Engineer, University of California Los Angeles**

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| Los Angeles, California | 2011 |

* Developed web applications in .net framework for accountants
* Engaged customers to gather and analyze requirements for developing web applications
* Developed and conduct testing throughout the software development life cycle
* Provided production support for systems within the UCLA Financial Systems application portfolio

**Web/App Developer (Hobby)**

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| Vancouver, Canada | 2008-Present |

* **Created multiple mobile ready websites using a diverse set of technologies**
  + - alliteration.me (HTML, PHP, Javascript, CSS, Bootstrap, perl)
    - c.albert-thompson.com (HTML, Javascript, perl, Bootstrap, PHP)
    - cemeteryfilter.herokuapp.com (Ruby, Javascript, Bootstrap)
    - lahomeliving.com (Wordpress)
* **Created, and developed apps to google play store**
  + - Live Translink (creator, https://play.google.com/store/apps/details?id=com.livetranslink)
    - ComicReader (developer, http://applications4android.blogspot.ca

**Software Engineering Consultant, Novatronic**

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| Lima, Peru | Summer 2010 |

* Created a workflow process for Novatronic to follow from initial to final stages of programming
* Worked closely with managers to ensure processes and workflows, I created, met developer’s needs and conformed to company standards
* Trained groups of developers in new workflow processes
* Added unit, integration, and quality assurance testing to the development workflow
* Designed software testing strategy, and introduced the automated tools jUnit, cUnit
* Designed a new schema for their subversion systems
* Held 5 company-wide training seminars to instruct them how to do code review

**Research in Web Code Extraction, University of California Irvine**

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| Irvine, California | March 2009 – 2010 |

* Applied machine learning to extract source code from Internet
* Studied HTML and XML code to figure out the best way to extract source code
* Developed fast algorithm that is 96% accurate in identifying source code
* Manually labeled over 16000 lines of HTML code to create test cases
* Created algorithm to compare oracle and output from source code extractor
* Wrote an honors thesis on the above findings

**Research in Test Suite Analysis, University of California Irvine**

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| Irvine, California | Summer 2009 |

* Discussed and read research papers to find out what has not been tried in the field of testing
* Found other people in same field to compare results
* Worked with a team to write software to analyze coverage testing results
* Implemented algorithm in python to find potential problems in applications written in C
* Met weekly with a team of 4 to discuss progress and assign tasks

**Representative, Church of Jesus Christ of Latter Day** **Saints**

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| Catania, Italy | May 2004 - May 2006 |

* Worked 60 hours per week providing service and instruction to interested parties
* Managed small and large community service projects 3-4 times a month
* Supervisor of field teams of 4 to 8 individuals for a year

**Alaskan Fisherman**,

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| King Salmon, Alaska | July 2003 |

* Worked 80-90 hours per week, for a one month expedition
* Worked in strenuous conditions with the 3-man crew
* Caught up to 1000 lbs. of fish per hour

**TEACHING EXPERIENCE**

* CS 410 Advanced Software Engineering (Fall 2014, Winter 2015)
* CS 310 Introduction to Software Engineering (Fall 2011, Winter 2012)
* CS 210 Software Construction (Fall 2012, Fall 2013)
* CS 110 Computation Programs and Programming (Summer 2012)
* CS 121 Models of Computation (Winter 2013)

**SERVICE**

* Computer Science Graduate Student Society, Vice Pres – Uni. British Columbia (2014-2016)
* Computer Science Graduate Student Society, Sports Rep – Uni. British Columbia (2012)
* Computer Science Honors Program at University of California, Irvine
* Undergraduate Computing Federation, VP – University of California, Irvine (2009)
* Cricket club, Treasurer – University of California, Irvine (2008-2010)
* **Eagle Scout (2003)**

**PUBLICATIONS**

* **C. Albert Thompson,** Gail C. Murphy, Marc Palyart, Marko Gašparič “How Software Developers Use Work Breakdown Relationships in Issue Repositories” *International Conference on Mining Software Repositories*, 2016.
* **C. Albert Thompson** “Towards Generation of Software Development Tasks” *International Conference of Software Engineering*,2015.
* **C. Albert Thompson,** Gail Murphy “Recommending a Starting Point for a Programming Task: An Initial Investigation” *Recommendation Systems for Software Engineering*, June 2014
* Phitchayaphong Tantikul, **C. Albert Thompson**, Rosalva E. Gallardo-Valencia, Susan Elliott Sim “Novel and Applied Algorithms in a Search Engine for Java Code Snippets” *Finding Source Code on the Web for Remix and Reuse* Springer New York, 2013.
* Adrian Kuhn, Gail Murphy, **C. Albert Thompson**, “An Exploratory Case Study on Forces and Frictions Affecting Large-Scale Model-Driven Development,” *International Conference on Model Driven Engineering Languages & Systems*, Sept 2012.
* **C. Albert Thompson,** Gail Murphy “Visualizing Model Differences Using Linear Reading Paths” *Network on Engineering Complex Software Intensive Systems for Automotive Systems*, June 2012

**VOLUNTEER ACTIVITIES**

* Physics Summer Camp Instructor (2017)
* Tech Trek (2012, 2014, 2016)
  + Leading high school workshops teaching biology
* Reading Buddies (2016)
* GIRLSmarts (2011, 2012, 2013, 2014, 2015\*, 2016\*)
  + \* Years I was co-leader of a project
* Genome BC (2012, 2013, 2014, 2015, 2016)
  + Leading high school workshops teaching biology
* CS Faculty Recruitment Committee (2014)
* CS Graduate Admissions Committee (2013)
* CS Outreach Committee (2013)
* CS Student Development Committee (2013)
* ACM Programming Contest (2012, 2013)
* CS Grad Affairs Committee (2012)
* CS Grad Recruiting Committee (2012)
* CSGSA Sports Rep (2012)
* Tri-mentoring (2011)