#### UNIVERSITY OF VICTORIA

**Date: August 1, 2024** 

**Revised:** 

Name: BERG, Celina (previously GIBBS)

Faculty: Engineering Department/School: Computer Science

### 1. Degrees and Diplomas

BSc Computer Science University of Victoria 2005

MSc Computer Science University of Victoria 2006

Sustainable System Infrastructure and Big Bang Evolution: Can Aspects keep pace?

PhD Computer Science University of Victoria 2011 Building a foundation for the future of software practices within the multi-core domain.

## 2. Positions Held Prior to Appointment at University of Victoria

Assistant Teaching Professor – Limited Term, University of Victoria (2013 – 2015) Instructor 1 – Tenure Track, University of British Columbia (2015 – 2018)

## 3. Major Field(s) of Scholarly or Professional Interest

Computer Systems and Software Engineering

## 4. Memberships and Offices Held in Learned and Professional Societies (include dates)

## 5. Scholarships, Fellowships, Honours and Awards (include dates)

2024 – Award for Teaching Excellence, Faculty of Engineering and Computer Science, UVIC

- 2017 Faculty Teaching Award, Computer Science Department, UBC
- 2013 Consulate General of Canada/Johnson & Johnson Cognition Challenge (\$50,000)
- 2008 Grace Hopper Celebration travel scholarship (\$1000)
- 2008 Anita Borg Scholarship (\$5,000)
- 2008 BCNet Programming Challenge semi-finalist (not monetary)
- 2007 NSERC Alexander Graham Bell Canada Graduate Scholarship (\$105,000)
- 2007 University of Victoria President's Scholarship (\$2,000)
- 2007 Symposium on Operating Systems Principles (SOSP) travel scholarship (\$700)
- 2007 BC Government Student Led Research Grant (\$1,500)
- 2007 NSERC, Pacific Discretionary Grant for ACCESS Project (\$4,200)
- 2006 University of Victoria Fellowship (\$15,000)

2005 – University of Victoria Fellowship (\$10,000)

2004 – NSERC Undergraduate Scholarship Research Award (\$4,500)

## 6. Appointments at University of Victoria

a. Academic

2022 – present Associate Teaching Professor Faculty of Engineering 2018 – 2022 Assistant Teaching Professor Faculty of Engineering

b. Administrative

Inclusive Years Title Academic Unit

## 7. Scholarly and Professional Achievements

- a. Articles Published in Refereed Journals
  - Carruthers, S., Milford, T., Coady, Y., Gibbs, C., Gunion, K., Stege, U., Teaching Problem Solving and Computer Science in the Schools: Concepts and Assessment, Pacific CRYSTAL Center for Science, Mathematics, and Technology Literacy: Lessons Learned, Sense Publishers, 2011.
  - Haupt, M. and B. Adams, S. Timbermont, C. Gibbs, Y. Coady, R. Hirschfeld, Disentangling Virtual Machine Architecture, in Special Edition of the IET (Institution of Incorporated Engineers) Journal on Domain-Specific Aspect Languages, Volume 3 Issue 3, pp 201-218, Jun. 2009.
  - Gibbs, C. and Y. Coady, Dynamic Patient Care with PHACTS, in Journal on Information Technology in Healthcare, Volume 6 Issue 2, pp 103-113, Apr. 2008.
  - Andrea, C., Y. Coady, C. Gibbs, J. Noble, J. Vitek, T. Zhao, STARS: Scoped Types and Aspects for Real-Time Systems, Real-Time Systems, Volume 31-1, pp 1-44, Oct. 2007.
  - Liu, R. and C. Gibbs, and Y. Coady, Safe and Sound Evolution with SONAR: Sustainable Optimization and Navigation with Aspects for System-Wide Reconciliation, Transactions on Aspect-Oriented Software Development (Springer), Special Issue on Aspect-Oriented Programming and Development for Software Evolution, 2007.
- b. Books, Chapters, Monographs

## c. Other Publications

- o Raj, R.K., Aly, S., Becker, B. and Berg C., Revising Programs to Align with Computer Science Curricula 2023 (CS2023), (in submission).
- Berg, C., Devathasan, K., and Craig, M., Test Anxiety, Self-Efficacy & Prior Experience. In Proceedings of the 2024 on Innovation and Technology in Computer Science Education V. 2 (ITiCSE 2024). ACM, New York, NY, USA, 796. https://doi.org/10.1145/3649405.3659487
- o Devathasan, K., Craig, M., Damian, D. and Berg, C., Test Anxiety and Self-Efficacy in a Computer-Based Test Environment, In Proceedings of the 26th

- Western Canadian Conference on Computing Education (WCCCE '24). ACM, New York, NY, USA, Article 1, 1–7. https://doi.org/10.1145/3660650.3660651
- Devathasan, K., Kepler, J., Warawa, J., Penney, A., Tsui, I., and Berg, C.,
   PrairieLearn in CS1: An Experience Report. In Proceedings of the 25th Western Canadian Conference on Computing Education (WCCCE '23). ACM, New York, NY, USA, Article 10, 1–2. <a href="https://doi.org/10.1145/3593342.3593344">https://doi.org/10.1145/3593342.3593344</a>
- Devanthasan, K., Berg, C., Damian, D., The Role of Abstraction in Introductory Programming, in the Proceedings of the 2022 ACM SIGPLAN International Symposium on SPLASH-E, pp. 7-13, November 2022. Available: ACM Digital Library, https://dl.acm.org/doi/10.1145/3563767.3568125.
- Acton, D. and Berg, C., Workshop on Electronic Grading (workshop), The 23<sup>rd</sup>
   Western Canadian Conference on Computing Education (WCCCE), May 2019.
- Allen, M., Berg, C., Dawson, J. and Leveridge, N., Insights from the Application of Universal Design Principles to Support English Language Learners, in the Proceedings of The 22<sup>nd</sup> Western Canadian Conference on Computing Education (WCCCE), May 2018.
- Berg, C., Integrating web-based programming practice tools with pre-lecture screencasts to enable higher-orders of reasoning within a flipped classroom (poster), Science Education Open House, University of British Columbia, Mar 2017.
- Demello, J., Lin, Y., Rothwell, A., Sangha, J., Yoo, J., Zhu, A. and Berg, C., Negotiation to improve second language acquisition applied to a computer science tutorial (poster), Science Education Open House, University of British Columbia, Mar 2017.
- Berg, C., From buds to Bloom's: A proposal for growing strong students, in the Proceedings of The 21<sup>st</sup> Western Canadian Conference on Computing Education (WCCCE), May 2016.
- Pucsek, D., Baldwin, J., MacLeod, L., Berg, C., Coady, Y., Salois, M., ICE: Binary analysis that you can see, IEEE Pacific Rim Conference on Communications, Computers and Signal Processing (PACRIM), Aug 2013.
- Kiemele, L., C. Berg, A. Gulliver, Y. Coady, KFusion: Optimizing Data Flow without Compromising Modularity, in the Proceedings of Modularity: AOSD 2013, Mar 2013.
- Harrington, N., A. Rook, C. Berg, N. Singh and Y. Coady, Spring Roo: A Bird's Eye View, in the Proceedings of Modularity: AOSD 2013 – Industry Track, March 2013.
- Bergen, A., D. Pucsek, J. Baldwin, L. MacLeod, C. Berg, M. Salois and Y.
   Coady, Parallel Perspectives: Reverse Engineering for Generation Multi-X, in the
   Proceedings of the Seventh International Conference On Broadband and Wireless
   Computing, Communication and Applications, Victoria, BC, Nov. 2012.

- Berg, C., J. Erickson, L. Kiemele, A. Schröter, A. Gulliver, Y. Coady M. Hoeberechts and C. de Grasse, PREDICT: Parallel Resources for Early Detection of Immediate Causes of Tsunamis, in the Proceedings of the Seventh International Conference On Broadband and Wireless Computing, Communication and Applications, Victoria, BC, Nov. 2012.
- Long, D., C. Gibbs, D. Pucsek, M. Salois, J. Wall, Y. Coady, Visualizing Patterns: A uniform representation of parallel patterns, in Proc. of Conference on Pattern Languages of Programs (PLoP), Oct 2011.
- Singh, N., C. Gibbs, D. Pucsek, M. Salois, J. Wall, Y. Coady, Spinal Tap: High Level Analysis for Heavy Metal Systems, in the Proceedings of the IEEE Pacific Rim Conference on Communications, Computers and Signal Processing (PACRIM), Victoria, BC, Aug 2011.
- Long, D.K., Kiemele, L., Gibbs, C., Brownsword, A. and Coady, Y., Mind the Gap! Bridging the dichotomy of design and implementation, in the Proceedings of the Fourth International Workshop on Software Engineering for Computational Science and Engineering (SECSE11) held at ICSE`11, May 2011.
- Pucsek, D., Wall, J., Gibbs, C., Baldwin, J., and Coady, Y., ICE: Circumventing Meltdown With An Advanced Binary Analysis Framework, as a Poster in the 1st Workshop on Developing Tools as Plug-ins (TOPI `11) held at ICSE`11, May 2011.
- Gibbs, C. and Coady, Y., Concurrency Conundrums An Ontological Solution?, in Proceedings of the International Conference on Knowledge Engineering and Ontology Development (KEOD `10), Oct. 2010.
- Gibbs, C. and Coady, Y., Parallelization and the Application Programmer: Random Self-Oscillation or Old Faithful?, in the Proceedings of the Workshop on Concurrency and the Application Programmer (CAP `10) held at SPLASH `10, Oct. 2010.
- Chester, S., C. Gibbs, F. Rossi, A. Brownsword, P. So, A. Gulliver, and Y. Coady, Insulating the scientific programmer from perilous parallel architecture, in Proc. of SPLASH 9<sup>th</sup> Workshop on Parallel/High-Performance Object-Oriented Scientific Computing, Oct. 2010.
- Gibbs, C., and Y. Coady, Understanding abstraction: means of leveling the playing field in CS1?, in Proceedings of SPLASH The Educators' and Trainers' Symposium., Oct 2010.
- o Gibbs, C. and Coady, Y., May the Force(s) be With You: A Systematic Approach to Pattern Selection, in Proceedings of the Workshop on Parallel Programming Patterns (ParaPLOP `10), Mar. 2010.
- Gibbs, C., Y. Coady, Joining Forces: A RIPPL Effect? A Constraint-Oriented Perspective on a Pervasive Pattern Language, in Proceedings of the International Conference on Pervasive Patterns and Applications (PATTERNS 2009), Nov. 2009 (23% acceptance rate).

- Gibbs, C., K. Gunion, Y. Coady, On the Codification of Coordination: An Ontological Tool for Pattern Mining, ParaPLoP Workshop on Parallel Programming Patterns, Mar. 2009.
- Gibbs, C., J. Baldwin, N. Singh, M. D'Hondt, Y. Coady, Living with the Law: Can Automation give us Moore with Less?, Short Paper in Proceedings of IEEE/ACM International Conference on Automated Software Engineering (ASE), pp 395-398, Sep. 2008 ([34 long, 36 short]/280 acceptance rate).
- Wong, J., O. Yazir, D. Minifie, C. Gibbs, J. Muzio, Y. Coady, Communicating Like Nemo: Scale-ability from a Fish-Eye View, Google Scalability Conference, Jun. 2008.
- Gibbs, C., Y. Coady, Promoting Natural Selection in System Infrastructure Software, in Proceedings of the Semantic-Based Systems Development workshop held at OOPSLA, Oct. 2007.
- O Gunion, K., S. Lonergan, C. Gibbs, and Y. Coady, Dreamcatchers: the future of aboriginal webs in Computer Science, Western Canadian Conf. on Computing Education (WCCCE), May 2008.
- Pearson, C., C. Gibbs, Y.Coady, Intuitive Source Code Visualization Tools for Improving Student Comprehension: BRICS, in Proceedings of the Process in OO Pedagogy - The sixth 'Killer Examples' workshop held at OOPSLA, Oct. 2007.
- Gibbs, C., and Y. Coady, Forest or trees? On the emerging need for software engineering throughout early CS courses, Western Canadian Conf. on Computing Education (WCCCE), May 2007.
- Jackson, L., Y. Coady, C. Gibbs, I. Bull, B. Gorman, M. Zastre, R. Brown, and M. Sanseverino, Problem solving, team work and flowcharts: CS1 goes retro at the University of Victoria, Western Canadian Conf. on Computing Education (WCCCE), May 2007.
- Agah St.Pierre, A., S. Carruthers, Y. Coady, R. Dunn-Krahn, S. Dunn-Krahn, C. Gibbs, G. Gibbs, H. Gibbs, S. Lonergan, J. Proctor, U. Stege, C. Storey, and M.A. Storey, Young minds storming through challenging Computer Science concepts, Western Canadian Conf. on Computing Education (WCCCE), May 2007.
- Singh, N. and C. Gibbs, and Y. Coady. C-CLR: A Tool for Navigating Highly Configurable System Software, in Proceedings of the Workshop on Linking Aspect Technology and Evolution, held at the International Conference on Aspect-Oriented Software Development (AOSD), Mar. 2007.
- Gibbs, C., J. Proctor, Y. Coady. Surrendering to the Need for Speed while Maintaining Visibility in Adverse Code Conditions, in Proceedings of the Workshop on Linking Aspect Technology and Evolution, held at the International Conference on Aspect-Oriented Software Development (AOSD), Mar. 2007.
- Gibbs, C., Y. Coady, Dynamic Patient Care with PHACTS, in Proceedings of the International Conference addressing Information Technology and Communications in Health (ITCH), Feb. 2007.

- Gibbs, C., D. Lohmann, C. Lui, Y. Coady, Modular Integration through Aspects: Making Cents of Legacy Systems, in Proceedings of the Clinical Process and Data Integration and Evaluation held at the Hawaii International Conference on System Sciences, Jan. 2007.
- O Gibbs, C., Y. Coady, M. Haupt, J. Vitek and H. Yamauchi, Towards a Domain Specific Aspect Language for Virtual Machines, in Proceedings of the Domain Specific Aspect Languages (DSAL) Workshop, held at the ACM Conference on Object-Oriented Programming, Systems, Languages, and Applications (OOPSLA), Oct. 2006.
- Andreae, C. and Y. Coady, C. Gibbs, J. Noble, J. Vitek and T. Zhao, STARS: Scoped Types and Aspects for Real-Time Systems, in Proceedings of the European Conference on Object-Oriented Programming (ECOOP), pp 124-147, Jul. 2006 (13%, 21/164 acceptance rate).
- Gibbs, C., STARS: Scoped Types and Aspects for Real-time Systems, in Proceedings of the Graduate Innovation Forum - UVic Engineering Research, Apr. 2006.
- O Gibbs, C., Y. Coady, J. Vitek, T. Zhao, J. Nobel, and C. Andreae, It is Time to Get Real with Real-Time: How Can Aspects, Patterns and Tools Help?, in Proceedings of the Workshop on Aspects, Components and Patterns for Infrastructure Software, held at the International Conference on Aspect-Oriented Software Development (AOSD), Mar. 2006.
- Coady, Y., and C. Gibbs, Hey! You've got your Aspects in my undergraduate curriculum, in Proc. of AIT Workshop, held at the International Conference on Aspect-Oriented Software Development (AOSD), Mar. 2006.
- o Gibbs, C., Y. Coady, Making Real-Time Abstractions Concrete with Aspects, in Proceedings of the Workshop on Java Technologies for Real-time and Embedded Systems (JTRES), held at the International Conference on Object-Oriented Programming, Systems, Languages, and Applications (OOPSLA), Oct. 2005.
- o Gibbs, C., R. Liu, Y. Coady, Scalable System Infrastructure and Big Bang Evolution: Can aspects keep pace?, in Proceedings of the European Conference on Object-Oriented Programming (ECOOP), pp 241-261, Jul. 2005 (14%, 24/174 acceptance rate).
- Gibbs, C., R. Liu, Y. Coady, And the Band Played On: Are Aspects Adrift in a Sea of Sinking Code?, in Proceedings of the Workshop on Linking Aspect Technology and Evolution (LATE) Workshop held at the International Conference on Aspect-Oriented Software Development (AOSD), Mar. 2005.
- Liu, R., C. Gibbs, Y. Coady. SONAR: System Optimization and Navigation with Aspects at Runtime, in Proceeding of the Dynamic Aspects Workshop, held at the International Conference on Aspect-Oriented Software Development (AOSD), Mar. 2005.
- o Gibbs, C., and Y. Coady, OASIS: organic aspects for system infrastructure software easing evolution and adaptation through natural decomposition, in

- Proceedings of the Hawaii International Conference on System Sciences (HICSS), Jan. 2005.
- Gibbs, C., Y. Coady, SAUSI: System Aspects for Uniformity in Software Infrastructure, in Proceedings of International Conference on Software and Systems Engineering and their Applications (ICSSEA), Dec. 2004.
- Liu, R., C. Gibbs, Y. Coady, MADAPT: Managed Aspects for Dynamic Adaptation using Profiling Techniques, in Proceeding of Reflective Middleware Workshop held at the Middleware Conference, Oct. 2004.
- Stampflee, O., C. Gibbs, Y. Coady, RADAR: Really low-level Aspects for Dynamic Analysis and Reasoning, in Proceedings of the Programming Languages and Operating Systems (PLOS) Workshop held at the European Conference on Object-Oriented Programming (ECOOP), Jul. 2004.
- Gibbs, C., Y. Coady, OASIS: Organic Aspects for System Infrastructure Software, in Proceeding of the Workshop on Reflection AOP and Metadata for Software Evolution Workshop, held at the European Conference on Object-Oriented Programming (ECOOP), pp 42-52, Jul. 2004.
- Gibbs, C., Y. Coady, Garbage Collection in Jikes: Could Dynamic Aspects Add Value, in Proceedings of Dynamic Aspects Workshop (DAW), held at the International Conference on Aspect-Oriented Software Development (AOSD), Mar. 2004.

## d. Papers, Lectures, Addresses

- (July 2024) Poster Presentation Berg, C., Devathasan, K., Craig, M., "Test Anxiety, Self-Efficacy & Prior Experience", The Conference on Innovation and Technology in Computer Science Education (ITiCSE).
- (May 2024) Presentation Devathasan, K., Craig, M., Damian, D. and Berg, C.,
   "Test Anxiety and Self-Efficacy in a Computer-Based Test Environment", The
   Western Canadian Conference on Computing Education (WCCCE).
- (Aug 2023) Lightening Talk Berg, C., "Computer-based assessments with PrairieLearn", Let's Talk About Teaching (LTAT), Division of Learning and Teaching Support and Innovation - University of Victoria.
- (Apr 2023) Presentation Berg, C. and Silva, M., "Computer-based assessments with PrairieLearn", Faculty Meeting, Faculty of Engineering and Computer Science - University of Victoria.
- (May 2023) Presentation Devathasan, K., Kepler, J., Warawa, J., Penney, A.,
   Tsui, I., and Berg, C., "PrairieLearn in CS1: An Experience Report", The Western Canadian Conference on Computing Education (WCCCE).
- (Aug 2020) Presentation Berg, C., "CSC 110 Online offering", From Stress to Success Speaker Series, Faculty of Engineering and Division of Learning and Teaching Support and Innovation - University of Victoria.

- (Aug 2020) Presenter- Berg, C., "Adding points of synchronization to asynchronous content delivery", Let's Talk About Teaching 2020, Division of Learning and Teaching Support and Innovation - University of Victoria.
- (Nov 2019) Panelist "Mentoring of Faculty and Graduate Students", ACM Canadian Celebration Of Women In Computing (CAN-CWIC)
- (May 2019) Co-presenter Acton, D. and Berg, C., "Workshop on Electronic Grading", The Western Canadian Conference on Computing Education (WCCCE).
- (Oct 2018) Presenter Berg, C., Mahmood, F., "Bridging the Gap for At-Risk Cohorts: Experimenting with English Language Learners", SPLASH-E (held in conjunction with conference on Systems, Programming, Languages and Applications: Software for Humanity (SPLASH)).
- (May 2018) Co-presenter Berg, C., Mahmood, Fatimah., "English language meets programming language in an introductory computer science course" (workshop), The 14<sup>th</sup> Annual Learning Conference – Creating Space for Learning, UBC-Okanagan.
- (May 2018) Co-presenter Allen, M., Berg, C., Dawson, J. and Leveridge, N.,
   "Insights from the Application of Universal Design Principles to Support English Language Learners", The Western Canadian Conference on Computing Education (WCCCE).
- (May 2017) Presenter Berg, C., "Technological Advances Driving the Evolution of Teaching Practices. Do These Practices Work?", The 13<sup>th</sup> Annual Learning Conference – Engaging Every Learner, UBC-Okanagan.
- (Mar 2017) Poster Presenter "Integrating web-based programming practice tools with pre-lecture screencasts to enable higher-orders of reasoning within a flipped classroom", Science Education Open House, University of British Columbia.
- (Mar 2017) Poster Presenter co-presented with Undergraduate Teaching Assistants (UTAs), "Negotiation to improve second language acquisition applied to a computer science tutorial", Science Education Open House, University of British Columbia.
- (May 2016) Presenter Berg, C., "From buds to Bloom's: A proposal for growing strong students", The Western Canadian Conference on Computing Education (WCCCE).

#### e. Professional Activities

- o (2024, 2023) Reviewer, Western Canadian Conference on Computing Education (WCCCE).
- o (2024, 2023) Committee Member, Excellence in Teaching Award Committee, CS-Can|Info-Can.
- o (Mar 2024), Panelist, Women in STEM: Industry & Academia Panel, Women in Engineering and Computer Science (WECS).

- o (Jul 2024), Panelist, Women in STEM: Industry & Academia Panel, Women in Engineering Science and Technology (WEST) and Schneider Electric.
- (Jan 2024), content provider, Examples of Universal Design for Learning (UDL), Teach Anywhere, UVic Division of Learning and Teaching Support and Innovation, site link.
- Oct 2023) podcast interviewee, Enhance your Teaching, Teach Anywhere, UVic Division of Learning and Teaching Support and Innovation, <u>recording</u>.
- (Oct 2022) content provider, Ministry Report by Strategic Projects and Communications Coordinator, UVic Division of Learning and Teaching Support and Innovation.
- (2021, 2017) Program Committee Member, SPLASH E (held in conjunction with conference on Systems, Programming, Languages and Applications: Software for Humanity (SPLASH)).
- (Sep Dec 2021) Organizer, weekly programming-practice events for CS1 students
- o (Sep 2021) volunteer, Java Bootcamp for CS2 students, organized by Dr. Estey.
- o (May 2021) Program review, DIGITAL Design + Development Post Graduate Diploma, North Island College.
- o (Mar 2021) podcast interviewee, Dr. Rebecca Gagan, UVic Bounce: recording.
- (Dec 2019) External Examiner, Felicia Halliday thesis defense, "Cops, Robbers, and Pre-Calculus Skills", Master's of Science in the Department of Mathematics and Statistics.
- (Nov 2019) Session Chair, STOKED Workshop (Spatio-Temporal Observations and Knowledge on Earth Data) held in conjunction with conference on Systems, Programming, Languages and Applications: Software for Humanity (SPLASH)
- (Oct 2019) Presenter, recruiting talk to Engineering Transfer students held at University of Fraser Valley, UVic Faculty of Engineering.
- o (Sep 2019) Panelist, New Student Welcome, UVic Faculty of Engineering.
- (Sep Dec 2019) Organizer, weekly programming-practice events for CS1 students
- (2017 2018) Advisory Board Member, Tapestry: Enabling Interactive, Remixable, Reusable, and Extensible Open Educational Modules.
   Principal Investigator: Stephen Barnes, UBC, Large Teaching and Learning Enhancement Fund (TLEF) Grant.
- o (2018) Program Co-Chair, Western Canadian Conference on Computing Education (WCCCE).
- (Mar 2018) Panelist, CS Meet and Greet, hosted by Committee on Diversity and Equity (CODE), UBC Computer Science Department.
- o (Mar 2018) Faculty co-representative, Meet your Major, UBC Faculty of Science.

- o (Jan 2018) Panelist, Career Panel Night, UBC Women in Science (WiS).
- o (2018, 2017) Reviewer, UBC Multidisciplinary Undergraduate Research Conference (MURC).
- (Oct 2017) Faculty representative, Vantage Applied Science UBC-O field trip, Vantage College.
- o (2017) Mentor, UBC Women in Science (WiS) Mentorship program.
- o (2017) Mentor, UBC Residence Life Mentorship program.
- o (2017) Chair, Vantage Capstone Conference. A yearly two-day conference to showcase student projects from Arts, APSC, Science and Management streams.
- o (2017) Presenter, Meet a Prof, Imagine Day, UBC Faculty of Science.
- o (2017, 2016, 2015) Co-presenter, Meet a Prof, Imagine Day, Vantage Applied Science, Vantage College.
- (2017) Learning Community Faculty Fellow, JumpStart Student Orientation, UBC First Year Experience.
- o (Aug 2017) Panelist, JumpStart Prof Talks, UBC First Year Experience.
- o (Aug 2017) Panelist, JumpStart Advising Session, Vantage College.
- (Mar 2017) Judge, BizHacks: case-competition/hackathon with collaborative teams of business and computer science students, Sauder School of Business, UBC.
- (Feb 2017) Panelist, STEM high-school career fair, Opening the Door, Science World, Vancouver, BC.
- (2017) Co-participant, Community of Inquiry (COI) Self-Regulated Learning (SRL) into the classroom setting.
   Community: 5 instructors from Math, Biology and Computer Science Project Lead: Silvia Mazabel, PhD Student, Educational & Counselling Psychology & Special Education
- o (2017, 2016) Reviewer, ACM Technical Symposium on Computing Science Education (SIGCSE).
- o (2017, 2015, 2013) Reviewer, Journal of Supercomputing, High performance Computer Design, Analysis and Use, Springer Journals.
- (2017, 2013) Reviewer, IEEE Pacific Rim Conference on Communications, Computers and Signal Processing.
- o (Oct 2016) Panelist, Lunch and Learn for female CS and prospective CS students, Focus on Women in Computer Science/Committee on Diversity and Equity.
- o (Mar 2016) Panelist, *Women in Tech Panel*, Focus on Women in Computer Science.
- o (Mar 2016) Panelist, *Meet your Major*, Faculty of Science.
- o (2016, 2015) Faculty co-representative, Vantage TA Orientation/Training.

o (2014) Co-reviewer, ACM Modularity Aspect-Oriented Software Development.

## **Education Conference/Workshop attendance for professional development:**

#### **International**

- (2019, 2018) attendee, SPLASH-E Symposium held at ACM SIGPLAN conference on Systems, Programming, Languages, and Applications: Software for Humanity (SPLASH)
- o (2017, 2016) ACM Technical Symposium on Computing Science Education (SIGCSE).
- o (2013) Gender Summit, Diversity Fueling Excellence in Research and Innovation.

#### National

- o (2024, 2023, 2022, 2019, 2018, 2017, 2016, 2008, 2007) Western Canadian Conference on Computing Education (WCCCE).
- o (Apr 2021) webinar, "Working with a Culture of Academic Integrity in the Classroom", Dr. Sarah Eaton, hosted by UVic Division of Learning and Teaching Support and Innovation.
- (Jan 2021) webinar, "Women in physics: Untold stories, the elephant in the room, and challenging the status quo", Dr. Rowan Thomson, hosted by Carleton University.
- (Nov 2020) presentation, "2020 Herzberg Lecture: Improving Diversity in Computer Science at All Levels", Dr. Maria Klawe, hosted by Carleton University.
- o (Jul 2020) Webinar, "Equity, Diversity and Inclusion in Computer Science Research", CS-Can|Info-Can.
- o (2019) ACM Canadian Celebration Of Women In Computing (CAN-CWIC)
- (2018, 2017) Annual Learning Conference, University of British Columbia Okanagan.

#### Local

- (Oct 2021) certificate completion Increasing Equity in Decision Processes,
   EQHR University of Victoria.
- (Sep 2021) certificate completion Connect Site Administrator, University Systems - University of Victoria.
- o (Apr 2020) "Workshop Online Exams and Assessments", Division of Learning and Teaching Support and Innovation University of Victoria.
- (Oct 2019) "Workshop Making assessment enjoyable: Is that possible?",
   Division of Learning and Teaching Support and Innovation University of Victoria.
- (Feb 2019) "Workshop Refining the teaching dossier: Wrapping it all up.",
   Division of Learning and Teaching Support and Innovation University of Victoria.

- o (Aug 2017) "First Year Education & Experience Forum", Karen Smith, Patty Hambler, Kari Marken, Neil Armitage, UBC First Year Experience.
- (Sep 2017) "Impact Assessment of Science Education Initiatives: What Strategies Have Worked, and Which Will Support Continued Improvements of Science Education at all Levels?", Francis Jones, EOAS and Ashley Welsh, Skylight & CTLT, UBC Science Education Supper Series.
- (Feb 2017) "Classroom group-work workshop", Barish Golland, UBC Vantage College.
- (Mar 2017) "Modernizing Laboratory Teaching in 2nd Year Chemistry laboratories", José Rodríguez Núñez and Jason Wickenden, UBC Science Education Supper Series.
- (Feb 2017) "Out of the file drawer and into the world: Start your students writing for Wikipedia", Rosemary J. Redfield and Judy Chan, UBC Science Education Supper Series.
- (Jan 2017) "Making (and Measuring) Connections: Adventures in Interdisciplinary Teaching and Learning", Chris Addison and James Charbonneau, UBC Science Education Supper Series.
- (Nov 2015) "Lunch and Learn: Experiential Learning Exploring the Possibilities", UBC Vantage College.
- (Oct 2015) "Demystifying Learning Analytics: Potential for the UBC Faculty of Science", Noureddine Elouazizi, Leah Macfadyen and Gillian Gerhard, UBC Science Education Supper Series.
- (Sep 2015) "A worksheet-focused approach to facilitate a classroom with diverse levels of preparation", Georg Rieger and Joss Ives, UBC Science Education Supper Series.

# Teaching Duties at the University of Victoria a. Courses Taught \*Class size taken at add/drop date 8.

Session	Course	Class	Total Hours	Taught per Course
	Number	Size	Lectures	Office Hours
202309	CSC 110 (2 sections:	282	72	74
	1 in-person, 1 hybrid)			
202209	CSC 110 (3 sections:	471	108	74
	2 in-person, 1 online)			
202205	CSC 110	78	36	39
202205	CSC 115	105	36	39
202109	CSC 110 (2 sections)	355	72	74
202105	CSC 110	129	36	39
202105	CSC 115	166	36	39
202101	CSC 111	112	36	56
202009	CSC 110 (2 sections)	396	72	56
202005	CSC 110	93	36	70
202001	CSC 111	111	36	28
202001	CSC 115	193	36	28
201905	CSC 110	70	36	26
201905	CSC 115	96	36	26
201901	CSC 115	156	36	26
201901	CSC 106	170	36	26
201505	SENG 310	54	36	26
201501	CSC 110	193	36	26
201501	SENG 310	76	36	26
201501	CSC 106	192	36	26
201409	CSC 116	54	36	36
201409	CSC 115	106	36	26
201405	SENG 310	45	36	26
201401	CSC 305	45	36	26
201309	CSC 167	101	36	26
201305	SENG 310	33	36	26
201301	SENG 310	55	36	26
201309	CSC 110	143	36	26
201209	CSC 110	111	36	26

#### Courses Taught at UBC b.

NOTE: (V) indicates courses taught in Vantage College

Session	Course	Class	Total Hours Taught per Course		
	Number	Size	Lectures	Tutorials	Office
					Hours
2018S	CPSC 213	107	39		26
2017W2	CPSC 110 (V)	51	36		32
2017W2	CPSC 213	160	36		34
2017W1	APSC 160 (V)	89	24	26	26
2017S	CPSC 110	182	52		26
2016W2	CPSC 110 (V)	60	36		36
2016W2	SCIE 113 (V)	22	30		26

2016W1	APSC 160 (V)	84	24	26
2016W1	CPSC 110	274	37.5	36
2016S	CPSC 110	186	52	26
2015W2	CPSC 110 (V)	30	36	26
2015W1	CPSC 110	183	35	26
2015W1	APSC 160 (V)	37	24	13

- c. Undergraduate Student Supervision
- o (May Aug 2023) Co-supervisor, Riya Sood, CSC497
- o (2021/22) Co-supervisor, Kezia Devathasan, UVic JCURA
- o (May Aug 2021) Co-supervisor, Kezia Devathasan, NSERC USRA
- d. Graduate Student Supervision
- (May 2023 Apr 2024) Faculty Mentor, Zhiming Huang, UVic President's Fellowship in Research-Enriched Teaching.

## 9. Administrative Activities

- a. University and Faculty Committees (include dates)
- o (Jun 2020 July 2020) member, Faculty Teaching Award Selection Committee
- (Nov 2019 June 2020) member, Associate Dean Undergraduate Programs Search Committee
- (Dec 2019) Engineering Faculty Representative, Senate Curriculum Committee meeting for Cycle 1 Calendar changes.
- o (Oct 2019) Participant, usability study of new account monitoring plugin for FAST
- o (Aug 2019) Participant, usability study of redesigned uvic.ca website
- b. Department/School Committees and Responsibilities (include dates)

at UVic: (not active May – Dec 2024 during study leave)

- o (2019 present) Chair, CSC Curriculum Committee
- o (2023 present) Chair, CSC Program Review Committee
- o (2019 present) member, ARPT Committee
- o (2019 present) member, CSC Executive Committee
- o (2019 present) coordinator, Outreach, Recruitment and Retention
- o (Jan Apr 2024) sessional mentor, Quinton Yong
- o (Sept Dec 2023) sessional mentor, Colby Johanson
- o (Jan–July 2023) member, Assistant Teaching Professor Hiring/Procedures Committee
- o (2023, 2022) new faculty mentor, Anthony Estey
- o (Sept 2021–July 2022) member, CSC Chair Search Committee
- o (Jan–July 2022) member, Assistant Teaching Professor Hiring/Procedures Committee
- o (Jan-July 2021) member, Assistant Teaching Professor Hiring/Procedures Committee
- o (2019 2023) created /graded CSC110 challenge exam (twice per year)
- o (2021) coordinator, department CS Education Reading group
- o (2021, 2019) peer evaluator, faculty teaching evaluations (1 per year)
- o (Mar–Dec 2020) coordinator, Online-Teaching working group
- o (Jul 2020) member, CSC Advisor hiring committee
- o (Jul 2020) member, Senior Lab Instructor hiring committee

## at UBC:

- (2015 2018) member, UBC Computer Science Undergraduate Operations Committee (UGO).
- o (2016 2018) member, Sessional/Lecturer Hiring Committee.
- o (2016 2018) Chair, Vantage College Academic Outreach Committee (V-AOC)
- o (2015 2018) member, Vantage College Curriculum Committee, Science
- o (2015 2018) member, Vantage College Curriculum Committee, Applied Science
- o (2016) member, UBC Computer Science Merit Committee

## 10. Other Information

- a. Funding, Grants
- Co-Pi, Work Integrated Learning (WIL) grant,
   Co-operative Education and Work-Integrated Learning Canada(CEWIL),
   (\$9,400)
- o 2023 UVic LTSI grant (\$2,200)
- o 2018 UBC Skylight Development Grant, APSC 160 (\$9,400)
- o 2017 CWSEI funding, tool development for APSC 160 (\$4,500)
- o 2016 CWSEI funding, tool development for APSC 160 (\$7,500)