Jon Pipitone

Curriculum Vitae

jon@pipitone.ca
http://github.com/pipitone

Education

- **MD Candidate (2016-2020), Queen's University School of Medicine**
- **MSc. Computer Science (2007-2010), University of Toronto**
  Thesis: "On software quality in climate modelling"
- **Hon BSc. Computer Science (2000-2004), University of Toronto**

Clinical Electives

1. **Psychiatry**, *Center for Addition and Mental Health, Toronto, Ontario* (2 weeks)
   Supervised by Dr. Aristotle Voineskos and Dr. Nicholas Neufeld in the Early Psychosis Unit. Daily rounding, family discussions, and assessments.
2. **Family Medicine**, *Northern Shores Medical Clinic, North Bay, Ontario* (2 weeks)
   Supervised by Dr. Renee Gauthier and other physicians in the group. Combination of hospitalist, and family clinic.
3. **Medical Oncology**, *Mount Sinai Hospital, Toronto, Ontario* (2 weeks)
   Supervised by Dr. Raymond Jang. Medical oncology, palliative care, and hematology clinic.
4. **Psychiatry**, *Belleville General Hospital, Belleville, Ontario* (4 weeks)
   Supervised by Dr. Colin Macpherson and Dr. Antonina Stakheiko. Combination of inpatient and outpatient assessments, consultations and follow up.
5. **Neurology**, *Queen's University, Kingston, Ontario* (2 weeks)
   Supervised by Dr. Sean Taylor and Dr. Moogeh Baharnoori. Inpatient and consultations.
6. **Family Medicine**, *Arnprior Family Health Team, Arnprior, Ontario* (2 weeks)
   Supervised by Dr. Michael Fishman. Combination of hospitalist, outpatient clinic, and home visits.

Volunteering

- **QMED Being A Medical Student**, Queen's University, 2018-09 - Present, *Facilitator*
  Elected facilitator for discussions led by upper year medical students for lower year medical students. Topics revolve around professionalism and ethics in medical school.
- **QMED SpeakEasy**, Queen's University, 2018-05, *Organiser/Facilitator*
  Co-organized an event for medical students to discuss difficult topics (e.g. religion in medicine, MAiD, mental illness amongst physicians). I facilitated a large group session on ground rules, active listening, and conflict resolution.
- **QMED Mindfulness**, Queen's University, 2016-09 - 2018-05, *Instructor*
  Organized and led daily morning meditation sessions and discussions.
- **Pre-clerkship Clinical Skills**, Queen's University, 2017 - 2018. *Instructor*
  Taught weekly pre-clerk clinical skills sessions.
- **QMED Class Professionalism Rep**, Queen's University, 2017-01 - Present. *Elected representative*
  Acted as a neutral advocate for my classmates professionalism concerns.

- **Circles Kingston**, Loving Spoonful, Kingston, 2018-07 - 2018-09, *Kitchen assistant*
  Poverty reduction program providing a monthly networking meetup where participants cook and share a meal together.
- **Software Carpentry**, 2007-2017, *Instructor/sysadmin*
  Volunteer-run research computing skills workshops for scientists. I participated in teaching, workshop content development and providing technical support.
- **CAMH Schizophrenia Volleyball Program**, CAMH, Toronto, 2012-2016. *Coordinator/Participant*
  Weekly non-competitive afternoon volleyball games attended by CAMH clients, staff and students providing a chance for socializing and behavioural activation.
- **Toronto Sustainable Food Co-operative**, University of Toronto, 2011. *Founder* Co-founded a workers cooperative that ran the Harvest Moon campus cafe, a student-run organization dedicated to serving sustainable food with fair employment.
- **Hot Yam!**, *2007-2011.* University of Toronto, *Coordinator*
  All-volunteer student-run campus kitchen providing up to 250 low-cost, sustainably-sourced vegan meals a week. I organized volunteers, menus and governance. Press! https://nowtoronto.com/food-and-drink/food/hot-damn-hot-yam/
- **Canadian Civil Liberties Association**, Toronto, Ontario, 2010. *Observer*
  Acted as a neutral observer of interactions between police and citizens at the protests during the 2010 G20 meeting in Toronto.
- **Various small-scale organic farms**, Ontario and Australia, 2004-2008, *Farm hand, Intern*
  Participated in all aspects of small-scale organic vegetable, livestock, orcharding and market sales in several farms in south western Ontario and in South Australia.

Teaching

- **QMED Computes**, Queen's University. 2017-09 - 2018-05. *Instructor*
  Designed and ran monthly research computing skills workshops for Queen's medical students. See https://pipitone.github.io/qmed-computes
- **Scientific Computing Fundamentals for CAMH Researchers workshop series**, CAMH, *Organizer/Instructor*
  Organized several multi-day workshop series taught by CAMH researchers *for* CAMH researchers on relevant computing and research skills. We covered topics such as advanced spreadsheet use, data cleaning, statistical analysis, basic programming skills. For example, see http://camh-scwg.github.io/lrn2compute
- **Climate Change: Software, Science, and Society (PMU199)**. University of Toronto, 2011-01 - 2011-05, *Teaching Assistant*
- **Software Carpentry (Python)**, University of Toronto, 2011-01 - 2011-05, *Head Teaching Assistant*
- **Software Carpentry (Python)**, University of Toronto, 2010-09 - 2010-12, *Head Teaching Assistant*
- **Software Carpentry**, University of Toronto, 2010-05 - 2010-07, *Course design*
- **Software Carpentry (MATLAB)**, University of Toronto, 2010-01 - 2010-05, *Instructor*
- **Software Carpentry (MATLAB/Python)**, University of Toronto, 2009-09 - 2009-12, *Teaching Assistant*
- **Introduction to Computer Science (CSCA48)**, University of Toronto, 2009-05 - 2009-08, *Teaching Assistant*
- **Software Design (CSC207)**, University of Toronto, 2009-01 - 2009-05. *Teaching Assistant*

- **Introduction to Computer Programming (CSC148)**, University of Toronto, 2008-01 - 2008-05. *Teaching Assistant*
- **Introduction to Computer Programming (CSC108)**, University of Toronto, 2007-09 - 2007-12. *Teaching Assistant*

Peer-Reviewed Publications

1. Bhagwat, Nikhil, Jon **Pipitone**, Aristotle N. Voineskos, and M. Mallar Chakravarty. "An Artificial Neural Network Model for Clinical Score Prediction in Alzheimer Disease Using Structural Neuroimaging Measures." Journal of Psychiatry and Neuroscience 44, no. 4 (July 1, 2019): 246–50. https://doi.org/10.1503/jpn.180016.
2. Amaral, Robert S.C., Min Tae M. Park, Gabriel A. Devenyi, Vivian Lynn, Jon **Pipitone**, Julie Winterburn, Sofia Chavez, et al. "Manual Segmentation of the Fornix, Fimbria, and Alveus on High-Resolution 3T MRI: Application via Fully-Automated Mapping of the Human Memory Circuit White and Grey Matter in Healthy and Pathological Aging." NeuroImage 170 (2018): 132–50. https://doi.org/10.1016/j.neuroimage.2016.10.027.
3. Donelle, Jessy, Jacalyn Duffin, Jonathan **Pipitone**, and Brian White-Guay. "Assessing Canada's Drug Shortage Problem." CD Howe Institute Commentary 515, 2018. https://doi.org/10.2139/ssrn.3192558.
4. Nazeri, Arash, Benoit H. Mulsant, Tarek K. Rajji, Melissa L. Levesque, Jon **Pipitone**, Laura Stefanik, Saba Shahab, et al. "Gray Matter Neuritic Microstructure Deficits in Schizophrenia and Bipolar Disorder." Biological Psychiatry 82, no. 10 (November 2017): 726–36. https://doi.org/10.1016/j.biopsych.2016.12.005.
5. Bhagwat, Nikhil, Jon **Pipitone**, Julie L. Winterburn, Ting Guo, Emma G. Duerden, Aristotle N. Voineskos, Martin Lepage, Steven P. Miller, Jens C. Pruessner, and Mallar Mallar Chakravarty. "Manual-Protocol Inspired Technique for Improving Automated MR Image Segmentation during Label Fusion." Frontiers in Neuroscience 10, no. JUL (July 19, 2016). https://doi.org/10.3389/fnins.2016.00325.
6. Plitman, Eric, Raihaan Patel, Jun Ku Chung, Jon **Pipitone**, Sofia Chavez, Francisco Reyes-Madrigal, Gladys Gómez-Cruz, et al. "Glutamatergic Metabolites, Volume and Cortical Thickness in Antipsychotic-Naive Patients with First-Episode Psychosis: Implications for Excitotoxicity." Neuropsychopharmacology 41, no. 10 (September 8, 2016): 2606–13. https://doi.org/10.1038/npp.2016.84.
7. Ameis, Stephanie H., Jason P. Lerch, Margot J. Taylor, Wayne Lee, Joseph D. Viviano, Jon **Pipitone**, Arash Nazeri, et al. "A Diffusion Tensor Imaging Study in Children With ADHD, Autism Spectrum Disorder, OCD, and Matched Controls: Distinct and Non-Distinct White Matter Disruption and Dimensional Brain-Behavior Relationships." American Journal of Psychiatry 173, no. 12 (December 2016): 1213–22. https://doi.org/10.1176/appi.ajp.2016.15111435.
8. Barnett, Alexander J, Min Tae M Park, Jon **Pipitone**, M Mallar Chakravarty, and Mary Pat McAndrews. "Functional and Structural Correlates of Memory in Patients with Mesial Temporal Lobe Epilepsy." Frontiers in Neurology 6 (May 13, 2015): 103. https://doi.org/10.3389/fneur.2015.00103.
9. Nieman, Brian J., A. Elizabeth de Guzman, Lisa M. Gazdzinski, Jason P. Lerch, M. Mallar Chakravarty, Jon **Pipitone**, Douglas Strother, et al. "White and Gray Matter Abnormalities After Cranial Radiation in Children and Mice." International Journal of Radiation Oncology*Biology*Physics 93, no. 4 (November 2015): 882–91. https://doi.org/10.1016/j.ijrobp.2015.07.2293.
10. Voineskos, Aristotle N., Julie L. Winterburn, Daniel Felsky, Jon **Pipitone**, Tarek K. Rajji, Benoit H. Mulsant, and M. Mallar Chakravarty. "Hippocampal (Subfield) Volume and Shape in Relation to Cognitive Performance across the Adult Lifespan." Human Brain Mapping 36, no. 8 (August 2015): 3020–37. https://doi.org/10.1002/hbm.22825.
11. Guo, Ting, Julie L. Winterburn, Jon **Pipitone**, Emma G. Duerden, Min Tae M. Park, Vann Chau, Kenneth J. Poskitt, et al. "Automatic Segmentation of the Hippocampus for Preterm Neonates from

Early-in-Life to Term-Equivalent Age." NeuroImage: Clinical 9 (2015): 176–93. https://doi.org/10.1016/j.nicl.2015.07.019.

12. Wong, Angelita Pui-Yee, Jon **Pipitone**, Min Tae M. Park, Erin W. Dickie, Gabriel Leonard, Michel Perron, Bruce G. Pike, et al. "Estimating Volumes of the Pituitary Gland from T1-Weighted Magnetic-Resonance Images: Effects of Age, Puberty, Testosterone, and Estradiol." NeuroImage 94 (July 2014): 216–21. https://doi.org/10.1016/j.neuroimage.2014.02.030.

13. Wheeler, A. L., M. M. Chakravarty, J. P. Lerch, Jon **Pipitone**, Z. J. Daskalakis, T. K. Rajji, B. H. Mulsant, and A. N. Voineskos. "Disrupted Prefrontal Interhemispheric Structural Coupling in Schizophrenia Related to Working Memory Performance." Schizophrenia Bulletin 40, no. 4 (July 1, 2014): 914–24. https://doi.org/10.1093/schbul/sbt100.

14. Park, Min Tae M, Jon **Pipitone**, Lawrence H. Baer, Julie L. Winterburn, Yashvi Shah, Sofia Chavez, Mark M. Schira, et al. "Derivation of High-Resolution MRI Atlases of the Human Cerebellum at 3T and Segmentation Using Multiple Automatically Generated Templates." NeuroImage 95 (July 15, 2014): 217–31. https://doi.org/10.1016/j.neuroimage.2014.03.037.

15. Friedel, Miriam, Matthijs C. van Eede, Jon **Pipitone**, M. Mallar Chakravarty, and Jason P. Lerch. "Pydpiper: A Flexible Toolkit for Constructing Novel Registration Pipelines." Frontiers in Neuroinformatics 8 (July 30, 2014). https://doi.org/10.3389/fninf.2014.00067.

16. Felsky, D, P Szeszko, L Yu, W G Honer, P L De Jager, J A Schneider, A K Malhotra, et al. "The SORL1 Gene and Convergent Neural Risk for Alzheimer's Disease across the Human Lifespan." Molecular Psychiatry 19, no. 10 (October 29, 2014): 1125–32. https://doi.org/10.1038/mp.2013.142.

17. **Pipitone**, Jon, Min Tae M Park, Julie Winterburn, Tristram A. Lett, Jason P. Lerch, Jens C. Pruessner, Martin Lepage, Aristotle N. Voineskos, and M. Mallar Chakravarty. "Multi-Atlas Segmentation of the Whole Hippocampus and Subfields Using Multiple Automatically Generated Templates." NeuroImage 101 (November 1, 2014): 494–512. https://doi.org/10.1016/j.neuroimage.2014.04.054.

18. Raznahan, Armin, Phillip W Shaw, Jason P Lerch, Liv S Clasen, Deanna Greenstein, Rebecca Berman, Jon **Pipitone**, Mallar M Chakravarty, and Jay N Giedd. "Longitudinal Four-Dimensional Mapping of Subcortical Anatomy in Human Development." Proceedings of the National Academy of Sciences 111, no. 4 (January 28, 2014): 1592–97. https://doi.org/10.1073/pnas.1316911111.

19. **Pipitone**, J., and S. Easterbrook. "Assessing Climate Model Software Quality: A Defect Density Analysis of Three Models." Geoscientific Model Development 5, no. 4 (August 9, 2012): 1009–22. https://doi.org/10.5194/gmd-5-1009-2012.

Work

- **Research Methods Specialist**, 2012-2016
  Kimel Lab, Centre for Addiction and Mental Health, Toronto

  Research in automated MRI image segmentation of the hippocampus, machine learning approaches to understanding hippocampus shape changes in Alzheimer's disease, classification of deficit/non-deficit schizophrenia from DWI white matter measures and tractography.

- **Research Intern**, 2011-2012
  Kimel Lab, Centre for Addiction and Mental Health, Toronto

  Research on automated MRI image segmentation techniques for the hippocampus and subfields. Also responsible for setup and management of lab cluster computing resources.

- **Course Developer**, 2012
  Mozilla, Toronto

  Developed course materials for the Python programming lessons of the Software Carpentry project http://software-carpentry.org.

- **Software Developer**, 2006-2007
  The Jonah Group, Toronto

  Developed a "data warehouse" database to allow efficient claims reporting by Blue Cross of Michigan.

- **Software Developer**, 2004-2006
  Fidalia Networks, Mississauga

  Designed and developed an application for remote technical support. Other responsibilities included configuring and managing company networking and wireless broadband radio infrastructure.

- **Software Developer**, 2003-2004
  The Blueprint Initiative, Toronto

  Developed a web application for curating and investigating biomolecular interactions data derived from literature search.

- **NSERC Summer Internship**, 2002 *Adoption-Centric Reverse Engineering Lab, University of Victoria, Victoria, BC*

  Developed a web-based tool for software reverse engineering and conducted user studies.

Interests

- **Cycling**: Two wheels good, four wheels bad. Commute everywhere via bicycle year-round. Taken several long bike trips (e.g. Toronto to Thunder Bay, Toronto to Montreal, Portland to San Francisco). Critical Mass participant. Self-taught bicycle maintenance.
- **Cooking & baking**. Curiously protective of my cast-iron pan. Mostly vegetarian. Prefer to make things from scratch, e.g. bread, dumplings, ramen, pasta, tortillas. Organized a student-led vegan cafe during grad school. My family runs an "Iron Chef" competition every Christmas.
- **Meditation**: 20+ year eclectic interest in meditation and Buddhism (Mahayana, Vipassana). Regularly listen to Buddhist audio lectures. Ran daily morning meditation sessions during pre-clerkship. Audited classes at U of Toronto on the cognitive science behind mediation.
- **Yoga**: 15+ years of Iyengar yoga. Mostly practice on my own.
- **Reading**: Who reads books anymore? I try, but now often "experience" books as audiobooks. Last book: The Goldfinch by Donna Tartt.
- **Running**: I used to be a competitive cross-country runner, and I still wish I were in some ways. Now I run a few times a week for the joy of it. 5-10km, trails > roads.
- **Camping & hiking**: Either as part of a bike trip, or on backcountry with canoes and boots. Favourite place: Killarney Provincial Park, ON.
- **Seinfeld**: I think this show plays on continuous loop in my head at all times. Big fan.
- **Programming**: My past life. I try to stay up to date by reading about and tinkering with the latest in software development, and have a few side projects (https://github.com/pipitone).

Available at: http://github.com/pipitone/cv
Last updated: Sat Nov 16 20:04:52 EST 2019