

BRIAN L. HILL

Curriculum Vitae

brian.l.hill@cs.ucla.edu ◊ www.brianhill.info

EDUCATION

University of California, Los Angeles Ph.D. Computer Science Advisor - Professor Eran Halperin	Exp. 2021
University of California, Los Angeles M.S. Computer Science	2019
Oregon State University B.S. Electrical and Computer Engineering Minor in Computer Science	2016

INDUSTRY EXPERIENCE

Microsoft Research <i>Research Intern</i>	2021
Omics Data Automation <i>Principal Engineer</i>	2016 - 2019
Intel <i>Intern</i> Health Strategy & Solutions Group 2013 - 2016 Heterogeneous Computing Group 2012 - 2013	2012 - 2016

TECHNICAL SKILLS

Programming Languages: Python, C/C++, SQL
Tools and Frameworks: Linux, Git, Keras/Tensorflow, Scikit-learn

TEACHING EXPERIENCE

University of California, Los Angeles <i>Teaching Assistant</i> Computational Genetics (Spring 2018) Computer Systems Architecture (Winter 2018) Introduction to Computer Organization (Fall 2017)	2017 - 2018
---	-------------

PEER-REVIEWED PUBLICATIONS

1. **Imputation of the continuous arterial line blood pressure waveform from non-invasive measurements using deep learning** Brian L. Hill, Nadav Rakocz, Akos Rudas, Jeffrey N. Chiang, Sidong Wang, Ira Hofer, Maxime Cannesson, Eran Halperin; *Scientific Reports* (2021).
2. **Automated identification of clinical features from sparsely annotated 3-dimensional medical imaging** Nadav Rakocz, Jeffrey N. Chiang, Muneeswar G. Nittala, Giulia Corradetti, Liran Tiosano, Swetha Velaga, Michael Thompson, Brian L. Hill, Sriram Sankararaman, Jonathan L. Haines, Margaret A. Pericak-Vance, Dwight Stambolian, Srinivas R. Sadda, Eran Halperin; *npj Digital Medicine* (2021).
3. **Bladder Cancer Immunotherapy by BCG Is Associated with a Significantly Reduced Risk of Alzheimers Disease and Parkinsons Disease** Danielle Klinger, Brian L. Hill, Noam Barda, Eran Halperin, Ofer N. Gofrit, Charles L. Greenblatt, Nadav Rappoport, Michal Linial, Herv Bercovier; *Vaccines* (2021).
4. **A machine learning algorithm to increase COVID-19 inpatient diagnostic capacity** David Goodman-Meza, Akos Rudas, Jeffrey N. Chiang, Paul C. Adamson, Joseph Ebinger, Nancy Sun, Patrick Botting, Jennifer A. Fulcher, Faysal G. Saab, Rachel Brook, Eleazar Eskin, Ulzee An, Misagh Kordi, Brandon Jew, Brunilda Balliu, Zeyuan Chen, Brian L. Hill, Elinor Rahmani, Eran Halperin, Vladimir Manuel; *PLOS ONE* (2020).
5. **BATMAN: fast and accurate integration of single-cell RNA-Seq datasets via minimum-weight matching** Igor Mandric, Brian L. Hill, Malika K. Freund, Michael Thompson, Eran Halperin; *iScience* (2020).
6. **Advancing clinical cohort selection with genomics analysis on a distributed platform** Jaclyn M. Smith, Melvin Lathara, Hollis Wright, Brian Hill, Nalini Ganapati, Ganapati Srinivasa, Christopher T. Denny; *PLOS ONE* (2020).
7. **Benchmarking of computational error-correction methods for next-generation sequencing data** Keith Mitchell, Jaqueline J Brito, Igor Mandric, Qiaozhen Wu, Sergey Knyazev, Sei Chang, Lana S. Martin, Aaron Karlsberg, Ekaterina Gerasimov, Russell Littman, Brian L. Hill, Nicholas C Wu, Harry Taegyung Yang, Kevin Hsieh, Linus Chen, Eli Littman, Taylor Shabani, German Enik, Douglas Yao, Ren Sun, Jan Schroeder, Eleazar Eskin, Alex Zelikovsky, Pavel Skums, Mihai Pop, Serghei Mangul; *Genome Biology* (2020).
8. **An automated machine learning-based model predicts postoperative mortality using readily-extractable preoperative electronic health record data** Brian L. Hill, Robert Brown, Eilon Gabel, Nadav Rakocz, Christine Lee, Maxime Cannesson, Pierre Baldi, Loes Olde Loohuis, Ruth Johnson, Brandon Jew, Uri Maoz, Aman Mahajan, Sriram Sankararaman, Ira Hofer, Eran Halperin; *British Journal of Anaesthesia* (2019).

9. **Challenges and recommendations to improve the installability and archival stability of omics computational tools**
Serghei Mangul, Thiago Mosqueiro, Richard J. Abdill, Dat Duong, Keith Mitchell, Varuni Sarwal, Brian L. Hill, Jaqueline Brito, Russell Jared Littman, Benjamin Statz, Angela Ka-Mei Lam, Gargi Dayama, Laura Grieneisen, Lana S. Martin, Jonathan Flint, Eleazar Eskin, Ran Blekhman; PLOS Biology (2019).
10. **Systematic benchmarking of omics computational tools**
Serghei Mangul, Lana S Martin, Brian L. Hill, Angela Ka-Mei Lam, Margaret Distler, Alex Zelikovsky, Eleazar Eskin, Jonathan Flint; Nature Communications (2019).
11. **Precision medicine and FPGA technology: Challenges and opportunities**
Brian Hill, Jaclyn Smith, Gans Srinivasa, Kemal Sonmez, Ashish Sirasao, Amit Gupta, Madhubanti Mukherjee; MWSCAS (2017).