

Lambert Leong

Curriculum Vitae

Department of Epidemiology
University of Hawaii Cancer Center
☎ (+1) 808-429-2576
✉ lamberttleong@gmail.com
🌐 www.lambertleong.com/
📄 LambertLeong in lambert-leong



Education

- 2019–present **PhD, Molecular Bioscience and Bioengineering**, *University of Hawaii*, Honolulu, HI, USA.
Reducing the Burden of Cancer With Artificial Intelligence
Advisor: Prof. John Shepherd
- 2016–2018 : **MS, Information & Computer Science**, *University of Hawaii*, Honolulu, HI, USA.
A Heuristic for Optimizing the Physical Layout and Network Topology of Integrated 3D Multi-chip Systems
Under Temperature Constraints
Advisor: Prof. Henri Casanova
- 2010–2014 : **BS, Biology**, *University of Oregon*, Eugene, OR, USA.
Minor: Chemistry

Experience

University of Hawaii Cancer Center

- November, 2018 **Graduate Research Assistant**, *University of Hawaii*, Honolulu, Hawaii.
– present Machine learning and artificial intelligence model development for medical imaging and cancer research
Advisor : **Prof. John Shepherd**, *Professor, Department Epidemiology*, University of Hawaii Cancer Center
([Shepherd Research Lab](#))

National Aeronautics and Space Administration (NASA)

- June, 2020 – **Pathway Intern**, *Johnson Space Center*, Houston, Texas.
August, 2020 Using machine learning to determine soft tissue and skeletal distribution for safe and functional suit design

Eyegenix LLC

- August, 2015 – **Researcher**, Honolulu, Hawaii.
October, 2018 Biosynthetic cornea manufacturing and biopolymer tissue engineering

Social Science Research Institute

- June, 2017 – **Database Engineer**, *University of Hawaii*, Honolulu, Hawaii.
August, 2017 Set up, maintain, and query Microsoft Access database

Hawaii Pathology Lab (HPL)

- June, 2012 – **Pathology Trainee II**, *The Queen's Medical Center*, Honolulu, Hawaii.
September, 2012 Participate in ongoing research related to genetic markers of colorectal cancer
Mentor : **Dr. Christopher Lum**, *Director, Hawai'i Pathologists' Laboratory Summer Research Program*
- June, 2011 – **Pathology Trainee I**, *The Queen's Medical Center*, Honolulu, Hawaii.
September, 2011 Develop a virtual microscopy imaging protocol for digital image capture of pathology slides
Mentors : **Garan Ito**, *Vice President Technical Operations at Diagnostic Laboratory Services*
Dr. Thomas Namiki, *Pathologist*

Publications

Journal Articles

- 2022 Yannik Glaser, John Shepherd, **Leong Lambert T**, Thomas Wolfgruber, Li-Ying Lui, Peter Sadowski, and Steven R Cummings. Deep learning predicts all-cause mortality from longitudinal total-body dxa imaging. *Communications Medicine*, page (In Review). Nature Publishing Group, 2022.
- 2022 Jonathan P. Bennett, Liu Yong En, Brandon K. Quon, Nisa N. Kelly, **Leong Lambert T**, Michael C. Wong, Samantha F. Kennedy, Dominic C. Chow, Andrea K. Garber, Ethan J. Weiss, Steven B. Heymsfield, and John A. Shepherd. Three-dimensional optical body shape and features improve the prediction of metabolic disease risk in a diverse sample of adults. *Obesity*, page (In Review). Wiley-Blackwell, 2022.
- 2021 Xun Zhu, Thomas K Wolfgruber, **Leong Lambert**, Matthew Jensen, Christopher Scott, Stacey Winham, Peter Sadowski, Celine Vachon, Karla Kerlikowske, and John A Shepherd. Deep learning predicts interval and screening-detected cancer from screening mammograms: a case-case-control study in 6369 women. *Radiology*, volume 301, pages 550–558. Radiological Society of North America, 2021.
- 2021 **Leong Lambert T**, Serghei Malkov, Karen Drukker, Bethany L Niell, Peter Sadowski, Thomas Wolfgruber, Heather I Greenwood, Bonnie N Joe, Karla Kerlikowske, Maryellen L Giger, et al. Dual-energy three-compartment breast imaging for compositional biomarkers to improve detection of malignant lesions. *Communications Medicine*, volume 1, pages 1–11. Nature Publishing Group, 2021.

Refereed Conference Proceedings

- 2021 **Leong Lambert**, Michael Wong, Yong En Liu, Nisa N. Kelly, Michaela Piazza, Siobhan Garry, Steve B. Heymsfield, and John A. Shepherd. Creating accurate representations of dxa scans from 3d optical body surface scans for arbitrary regional body composition analysis. In *3DBODY.TECH Conference & Expo*. 3DBODY.TECH, Oct 2021.
- 2020 **Leong Lambert T** and Sean Wiere. Digit recognition from wrist movements and security concerns with smart wrist wearable iot devices. In *53rd Hawaii International Conference on System Sciences*. HICSS, 2020.
- 2020 **Leong Lambert**, Maryellen Giger, Karen Drukker, Karla Kerlikowske, Bonnie Joe, Heather Greenwood, Serghei Markov, Bethany Niell, and John Shepherd. Three compartment breast machine learning model for improving computer-aided detection. In *15th International Workshop on Breast Imaging (IWBI2020)*, volume 11513, page 115130M. International Society for Optics and Photonics, 2020.
- 2019 Michihiro Koibuchi, **Leong Lambert**, Tomohiro Totoki, Naoya Niwa, Hiroki Matsutani, Hideharu Amano, and Henri Casanova. Sparse 3-d nocs with inductive coupling. In *2019 56th ACM/IEEE Design Automation Conference (DAC)*, pages 1–6. IEEE, 2019.

Invited Presentations and Abstracts

- 2022 Dustin Valdez, Jami Fukui, Thomas Wolfgruber, **Leong, Lambert**, Gertraud Maskarinec, and John Shepherd. Abstract p3-01-13: Comparing portable and clinical ultrasound systems using 3d printed breast phantom inserts. *Cancer Research*, volume 82, pages P3–01. The American Association for Cancer Research, 2022.
- 2021 Xun Zhu, Thomas K Wolfgruber, **Leong Lambert**, Matthew Jensen, Christopher Scott, Stacey Winham, Peter Sadowski, Celine Vachon, Karla Kerlikowske, and John A Shepherd. Deep learning predicts interval and screening-detected cancer from screening mammograms: a case-case-control study in 6369 women. Radiological Society of North America (RSNA), Dec 2021.
- 2020 Michael Wong, Yong En Liu, Dylan Lowe, Jonathan Bennett, **Leong Lambert**, Ethan Weiss, Steven Heymsfield, and John Shepherd. Detecting significant body composition change with reposed three-dimensional optical surface scans. In *OBESITY*, volume 28, pages 75–75. Obesity, 2020.

- 2019 **Leong, Lambert**, Thomas Wolfgruber, Shane Spencer, Serge Muller, and John Shepherd. Accurate local estimation of compressed breast thickness in digital breast tomosynthesis using an iterative reconstruction approach. Radiological Society of North America (RSNA), Dec 2019.
- 2012 Jared David Acoba, Christopher A Lum, and **Leong, Lambert T**. Analysis of kras and braf mutant colorectal cancers in a multiracial population. American Society of Clinical Oncology (ASCO), 2012.

Correspondences

- 2020 **Leong, Lambert T**. Correspondence: Preoperative assessment of breast cancer: Multireader comparison of contrast-enhanced mri versus the combination of unenhanced mri and digital breast tomosynthesis. *The Breast: official journal of the European Society of Mastology*, volume 51, page 102. Elsevier, 2020.

Misc. Publications and White Papers

- 2022 **Leong, Lambert**. Visualizing 2 years of covid-19 in hawaii with animated plots, Mar 2022.
- 2021 **Leong, Lambert**. Area under the curve and beyond, Aug 2021.
- 2020 **Leong, Lambert T**. Snapshot samplings of the bitcoin transaction network and analysis of cryptocurrency growth. *arXiv preprint arXiv:2003.06068*, 2020.
- 2018 **Leong, Lambert**. A heuristic for optimizing the physical layout and network topology of integrated 3d multi-chip systems under temperature constraints. Master's thesis, University of Hawai'i at Manoa, 2018.

Honors & Awards

- 2021 **Traniee Travel Grant**, University of Hawaii Cancer Center
- 2020 **Graduate Student Organization Grant**, University of Hawaii
- 2020 **Traniee Travel Grant**, University of Hawaii Cancer Center
- 2019 **Traniee Travel Grant**, University of Hawaii Cancer Center