Po-Hsuan Cameron Chen

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Cameron is a machine learning scientist developing state-of-the-art algorithms for healthcare, science, finance, etc. His work has been published in leading venues such as Nature, JAMA, NeurIPS and covered by media outlets, including the New York Times, Forbes, Engadget, etc.

Experiences

ML Tech Lead Manager, Staff Software Engineer, Google Health — Palo Alto, CA

2017-2021

- 2020- Tech Lead Manager, Staff Software Engineer, Google Health
- 2019-2020 Tech Lead, Senior Software Engineer, Google Health
- 2017-2019 Software Engineer, Google Brain
- Increase the accuracy and efficiency of pathological diagnosis.
- We have developed several AI systems for cancer detection, grading, and prognosis prediction published in top scientific and medical journals.

Quantitative Research Intern, Vatic Labs — New York, NY

2016

- Algorithmic trading at Vatic Labs

Machine Learning Intern, Palantir — Palo Alto, CA

2015

- Energy usage pattern analysis at Palantir

Machine Learning Scientist Intern, Amazon — Seattle, WA

2014

- Demand forecasting

Intern, McKinsey & Company — Taipei, Taiwan

2010

- Tech product design analysis

Education

PhD, Princeton University — Princeton, NJ

2012-2017

- Electrical Engineering and Neuroscience

BS, National Taiwan University — Taipei, Taiwan

2007-2011

- Electrical Engineering

Selected Publications

For a full publication list, see https://scholar.google.com/citations?hl=en&user=OrhZiAIAAAAJ

Dissertation

- Multi-view Representation Learning with Applications to Functional Neuroimaging Data, 2017

Research Papers

- Lai, Kingslake, Wearing, Chen, Gentine, Li, Spergel, van Wessem, “Vulnerability of Anaartica’s ice shelves to meltwater-driven fracture”, Nature, 2020
- Liu*, Chen*, Krause, and Peng. “How to read articles that use machine learning: Users’ Guides to the Medical Literature”, JAMA, 2019
- Chen*, Liu*, and Peng. "How to develop machine learning models for healthcare", Nature Materials, 2019
- Chen*, Gadepalli*, MacDonald* et al. “An augmented reality microscope with real-time artificial intelligence integration for cancer diagnosis”, Nature Medicine, 2019

- Nagpal, Foote, Tan, Liu, Chen et al. “Development and Validation of a Deep Learning Algorithm for Gleason Grading of Prostate Cancer From Biopsy Specimens”, JAMA Oncology, 2020
- Steiner, Chen, and Merme, “Closing the translation gap: AI applications in digital pathology under” Biochimica et Biophysica Acta, 2020
- Ibrahim*, Gamble*, Jaroensri*, Abdelsamea, Mermel, Chen, and Rakha, “Artificial intelligence in digital breast pathology: Techniques and applications”, The Breast, 2020i

Awards & Honors

2016	• Google PhD Fellowship
2015	• NeurIPS Oral Presentation (1 of 15 papers accepted for oral presentation)
2016	• Deep Learning Summer School Award
2014-2016	• NIPS Travel Award
2013	• Study Abroad Scholarship, Ministry of Education, Taiwan
2012	• University Fellowship for Science and Engineering, Princeton University
2011	• Valedictorian, Department of Electrical Engineering, National Taiwan University
2011	• First Prize, Outstanding Undergraduate Independent Research, NTU EE Department
2011	• Honorary Member, Phi Tau Phi Scholastic Honor Society
2010	• International Champion, Altera Innovate Asia FPGA Design Competition

Academic Services

Journal Reviewer:

- Nature Medicine
- Nature Communications
- BMJ Open
- NeuroImage
- IEEE Transactions on Signal Processing
- IEEE Transactions on Selected Topics in Signal Processing

Conference Reviewer:

- NeurIPS 2016-2020
- MICCAI 2019-2020
- ACM CHIL 2020
- CISS 2016

Technical Program Committee

- Program Chair, 2021 ICCV Computational Pathology Workshop

Selected Talks

- From Diagnosis to Prognosis: How Deep Learning is Changing Healthcare, 2021
  National Taiwan University Hospital Oncology Department, National Taiwan University EE Department, Medical University of Graz
- How to Develop Machine Learning Models for Healthcare, 2020
  Brigham Women Hospital Seminar, St. Jude Children's Research Hospital Data Science Seminar
- Advancing Prostate Cancer Diagnostics with Deep Learning, 2020
  MICCAI PANDA Workshop
- Artificial Intelligence for Healthcare, 2020
  天下經濟論壇 CWEF

- Advancing Cancer Diagnostics with Deep Learning, 2020
  St. Jude Children's Research Hospital Grand Round, Google AI Bootcamp, Yang Ming University, Taipei Medical University
- How to Develop Machine Learning Models for Healthcare, Jan 2019
  National Taiwan University Hospital, Taipei Veterans General Hospital, National Taiwan University EE Department, National Cheng Kung University CS Department, and Taiwan AI Labs
- Deep Learning for Medical Imaging, Jul 2018
  Google AI Bootcamp and Academia Sinica
- Multi-view Representation Learning with Applications to Functional Neuroimaging Data, Jan 2018
  National Taiwan University, National Tsing Hua University
- Princeton PhD Final Public Oral Examination, June 2017
- What is AI and Why Should We Care? --Philosophical reflections on artificial intelligence @ Café Philo, NY, May, 201
- Shared Response Model Tutorial --What works? How can it help you? @ Princeton Neuroscience Institute, Feb, 2016
- Advanced machine learning with fMRI data, Guest Lecture @ Princeton NEU502B, Mar, 2016
- Alignment of Neuroimaging Data Using the Shared Response Model, Intel Labs, Jan, 2016
- A Reduced-Dimension fMRI Shared Response Model, 2015
  NIPS, Palantir
- Probabilistic Hyperalignment 2014
  Princeton Neuroscience Institute, Dartmouth College
- Multi-task Learning with Gaussian Process Latent Factor Models for Demand Forecasting, Amazon, Aug 2014
- Multi-task Learning for Demand Forecasting, Amazon Research Symposium, Aug 2014
- Joint-SVD Hyperalignment, 2013
  Princeton Neuroscience Institute, Dartmouth College