Nelson Johansen

University of California, Davis
njjohansen@ucdavis.edu

EDUCATION

University of California, Davis *2020*
Ph.D. in Computer Science
Advisor: Gerald Quon

Research Focus
Developing and utilizing methods from machine learning and statistics
to identify the genomic basis of disease and conditional response of
cell populations. Currently, I am working on a deep learning method for
unsupervised data harmonization on single cell RNA sequencing data to
understand changes to cells due to conditions such as age, inflammation
and small molecule perturbations. Previous works include the development
of a shared information approach using markov chains to identify the
genetic targets of drugs by leveraging recent large-scale transcriptomic
perturbation studies. As well as predicting which combinations of drugs are
combinations of drugs are optimal for targeting specific cells and cancers.

University of California, Davis 2015
B.Sc. in Computer Science

INVITED
TALKS

Characterizing cell type-specific responses to stimuli using single 2018
cell RNA sequencing.
DSI Seminar Series
Lawrence Livermore National Laboratory

Characterizing cell type-specific responses to stimuli using single 2018
cell RNA sequencing.
NASA's Ames Research Center

Leveraging big data genomics for the inference of drug targets. 2017
**11th Annual Spotlight on Junior Investigators Cancer
Research Symposium**,
UC Davis Comprehensive Cancer Center.

The role of big data in genomics and medicine: predicting 2017
combination therapies to target genetic vulnerabilities in cancer.
38th Annual Institute on Research and Statistics,
CSU Sacramento.

| PANEL MEMBER | Deep Domain Adaption Networks Identify and Explain Cell State Changes after Stimulus. **Artificial Intelligence & Machine Learning Symposium** UC Davis medical center | 2018 |

| POSTER PRESENTATIONS | Characterizing cell type-specific responses to stimuli using single cell RNA sequencing. **Nelson Johansen**, Gerald Quon Beyond the Cell Atlas: Frontiers in Cell Biology Driven by New Technology. Chan Zuckerberg Initiative | 2018 |

Predicting combination therapies to target genetic vulnerabilities in cancer.
Nelson Johansen, Gerald Quon
UC Davis DEB Retreat, Napa.
2017

Network based strategy for predicting combinations of compounds.
Nelson Johansen, Gerald Quon
22nd Annual Cancer Research Symposium, UC Davis Cancer Center &
3rd UC Davis Human Genomics Symposium
2017

| HONORS AND ACTIVITIES | Top Abstract at the inaugural AI & ML Symposium, UC Davis Med. Center UC Davis Dean's Honor List UC Davis Computer Science Tutor | |

GRADUATE COURSEWORK	Graph Theory	2017
	Machine Learning	2017
	Computational Methods in Systems and Synthetic Biology	2016
	Artificial Intelligence	2015