CALVIN CHI

CONTACT	calvin.t.chi@gmail.com (626) 203-1829	https://calvintchi.github.io
EDUCATION	University of California, Berkeley Ph.D., Computational Biology	2015 - 2020
INDUSTRY	Applied Scientist at AmazonPrediction and bidding science in Amazon advertising's	Aug 2020 - present s demand-side platform (DSP).
	• Developed and deployed DSP's first deep learning commodel, and internal bidding simulator.	version prediction model, pre-ranking
	• Proposed applications for uncertainty quantification an	d exploration; pacing regret analysis.
SKILLS	Programming : Python, PySpark, R, SQL, Java, Bash, Mat ML frameworks : PyTorch, TensorFlow, Scikit-Learn Graduate Coursework : Deep RL, LLM agents, NLP, CW	lab, HTML, CSS, Javascript, C, Scala 7, Optimization, Linear Models, Data
	Structures & Algorithms, Database Systems	, L , , , , , ,
SELECTED PUBLICATIONS	Lin Zhong, Laurent Crelier, Calvin Chi, Yu Gan. A Learni Amazon Machine Learning Conference (AMLC) 2023. Confe	ng to Rank Model for Amazon DSP. rence paper.
	Calvin Chi. Multitask Learning for Conversion Probability Amazon Advertising. Amazon Machine Learning Conference Advertising: User Response Prediction and Privacy-Preservit	Prediction of Goal-Optimized Ads in (AMLC) 2022. Workshop on Amazon ng Advertising.
	Chi, Calvin, et al. "Identification of Sjögren's syndrome pat salivary gland DNA methylation profiles." Plos one 18.3 (202	ient subgroups by clustering of labial 23): e0281891.
	Chi, Calvin, et al. Bipartite graph-based approach for clusteri response associations. Bioinformatics (2021).	ng of cell lines by gene expression-drug
PROJECTS	HLA Allele Imputation with Multitask Deep CNNDeveloped multitask CNN for imputing HLA alleles from	June 2021 om genotype data.
	• Achieved 97.6% overall imputation accuracy, beating existing SOTA HLA imputation methods.	or achieving similar performance as
	 Embedding-Augmented Deep CNN for PubMed Jou Journal detection from PubMed abstract with 415,381 	rnal Recommendation Dec 2018 programmatically-collected abstracts.
	• Compared multitask and embedding-augmented CNNs	with output space of 1,548 journals.
	• Best performance when CNN input augmented with with accuracy 23.7% and 90% of true journals in top 6	topic and impact factor embeddings, 0 recommendations.
	 Data Augmentation using GAN for Breast Cancer C Synthetic data augmentation using DCGAN to improve with Resnet-18 re-trained on 5,547 breast histology improvements 	Hassification May 2018 e histology breast cancer classification ages.
	• Augmentation with 400 DCGAN images improved pre and 12% respectively, but decreased recall by 15%.	diction accuracy and precision by 5%
	Bearmaps Mapping application in Java with rastering with quad tree, r search with autocompletion with a trie.	Apr 2016 outing via A* algorithm, and location
AWARDS	NSF Graduate Research Fellowship	Mar 2017