SIZHU (LINDSAY) CHENG

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EDUCATION

Stanford University   *Septembmer 2017 - June 2019*
M.S. Computational & Mathematical Engineering   GPA: 3.61

University of California, Los Angeles   *July 2013 - June 2017*
B.S. Applied Mathematics and *B.S.* Neuroscience.   GPA: 3.71
Honors: Cum Laude, Dean's List, ALD | PES Honor Society, Golden Key International Honor Society

RELEVANT EXPERIENCE

Neeva   December 2019 - Present
Software Engineer, Machine Learning and Search Ranking   *Mountain View*

· Work as members of the early team to personalize User's preferred results in both *Home* and the search result page
· Improve the index selection's quality and efficiency in the core information retrieval system
· Boost the local search quality by a significant amount by improving query understanding, results ranking and retrieval
· Integrate several third-party APIs into the product and design an automated user-interested contents generator, which is widely used among the users.
· Mentor an intern and several new grads and provide early-career advice

Stanford University, Psychology Department   January 2019 - July 2019
Graduate Research Assistant   *Palo Alto*

· Studied mathematical cognition and the development of human abilities to obtain mathematical perceptions
· Designed a deep neural network model to study how human learn magnitude comparison and simple addition for one-digit numeral
· Analyzed and interpreted how approximate arithmetic training may affect preschoolers' performances in simple math problems

SAP Labs, LLC   June 2018 - August 2018
iXp Intern - Applied Data Science and Machine Learning (NLP), Recast Conversational AI   *Palo Alto*

· Tested 50+ different combinations of encodings and clustering algorithms on data with ground truth
· Incorporated more embeddings and similarity computation methods into the existing algorithms

ADDITIONAL EXPERIENCES

UCLA David Geffen School of Medicine, Neurology Department   January 2016 - June 2017
Undergraduate Research Assistant   *Los Angeles*

· Studied the pathology of Parkinson's Disease by conducting behavioral experiments on zebrafish with a small team
· Monitored the movements of zebrafish using Viewpoint software to focus on transgenic genes pathological in Parkinson's Disease
· Analyzed the behavior data, including over 10,000 speed data, which reflects instantaneously the motion of the fish above a certain threshold
· Imaged the neuron distributions inside the fish bodies and counted any significant loss of neurons

SKILLS

Programming Languages	Python, Golang, SQL, C++, Matlab, Shell script, LaTex, Markdown, Julia
Tools	Kubernetes, Databricks, Spark, Tensorflow, Pytorch, Airflow, Grafana

PUBLICATIONS

Sizhu Cheng, Arianna Yuan. *Understanding the Learning Effect of Approximate Arithmetic Training: What is Actually Being Learned?*
Paper accepted for the 17th Annual Meeting of the International Conference on Cognitive Modeling, Montreal, Canada, 2019

Sataree Khuansuwan, Lisa M. Barnhill, **Sizhu Cheng**, and Jeff M. Bronstein. *A novel transgenic zebrafish line allows for in vivo quantification of autophagic activity in neurons*, Autophagy 2019

SERVICE ACTIVITIES

Stanford Women in Math Mentoring, Stanford University   September 2017 - June 2019
Mentor   *Palo Alto*

· Provides advises to women undergraduates who consider graduate school in mathematical fields
· Assists women undergraduates in arranging their undergraduate studies and facilitates them to find their career goals