Dalin (Darlene) Guo

SSRB 248, 9500 Gilman Dr., La Jolla, CA, 92093 (858)-405-0315, dag082@ucsd.edu, dalinguo.github.io

Education University of California San Diego La Jolla, CA Sept., 2018 - June, 2021 (expected) Ph.D. Student in Cognitive Science Sept., 2016 - June, 2018 Ph.D. Student in Electrical and Computer Engineering

> University of California San Diego La Jolla, CA M.S. in Intelligent System, Robotics and Control, ECE, GPA: 3.97/4.0 Sept., 2016 - June, 2018

> University of California San Diego La Jolla, CA Sept., 2015 - Mar., 2016 Exchange Student, EECS, GPA: 3.94/4.0

> Beijing Institute of Technology Beijing, China B.S. in Signal and Image Processing, Electrical Engineering, GPA: 90/100 Sept., 2012 - June, 2016

Skills Python, Matlab, Java, C, TensorFlow, Git, Vim, LaTeX Bayesian Methods, Statistics, Stochastic Control, Computer Vision, Sparse Signal Recovery

Publications Guo, D, Yu, AJ (2018). Why so gloomy? A Bayesian explanation of human pessimism bias in the multi-armed bandit task. Advances in Neural Information Processing Systems, 32. (Scores: 8, 8, 7)

> Harlé, K.M., Guo, D., Zhang, S., Paulus, M., Yu., AJ (2017). Anhedonia and anxiety underlying depressive symptomatology have distinct effects on reward-based decision-making. PLoS ONE 12(10):e0186473.

Conference Guo, D, Yu, AJ (2018). Humans underestimate reward probability and overestimate environmental volatility in a multi-armed bandit task - insights from a Bayesian analysis of human learning and decision-making. SfN Annual Meeting, San Diego, CA, USA (Oral)

> Guo, D, Meyniel F., Yu. AJ (2018). Recovering human reward expectation in a bandit setting using Bayesian models. CoSyNe Abstracts 2018, Denver, CO, USA (acceptance rate: 56%)

> Guo, D, Yu, AJ (2017). Human learning and decision-making in the multi-armed bandit task. Women in Machine Learning Workshop, Long Beach, CA, USA

> Guo, D, Yu, AJ (2017). Dependence of reward-based learning and decision-making on environmental statistics such as reward abundance and variance. SfN Annual Meeting, Washington D.C., USA

Research Experience

Posters

& Talks

Computational & Cognitive Neuroscience Lab, UC San Diego La Jolla, CA Sept., 2016 - Present Graduate Student Researcher, Advisor: Angela J. Yu

Bayesian predictive modeling of human learning and decision-making in multi-armed bandit task - Recovered and explained human irrationality of a low prior reward expectation (NIPS 18)

- Compared human decision-making vs. various reinforcement learning models (WiML 17)

- Investigated impaired decision-making process of depressed population via modeling (PloS 17)

Center for functional MRI, UC San Diego Undergraduate Research Intern, Advisor: Thomas T. Liu

July, 2015 - Mar., 2016 - Examined various motion correction techniques, and incorporated into a fMRI pre-processing pipeline

- Performed resting-state fMRI connectivity analysis within and across subjects

IBM China Development Lab Internship

Technical Intern, Pure Application team May, 2016 - Aug., 2016 - Set up environment and installed software products on multiple virtual servers based on Ansible

- Built a mock server for software development testing based on IBM Rational Integration Tester

Teaching Experience COGS 118A Intro to Machine Learning, UC San Diego Teaching Assistant

La Jolla, CA Fall 2018

La Jolla, CA

Beijing, China

- Rigorous introduction to ML, covering fundamentals and hands-on skills in supervised learning

COGS 118D Stats/Behavioral Data Analysis, UC San Diego La Jolla, CA Teaching Assistant Winter 2017 & Winter 2018

- Mathematically sophisticated course covering both classical and Bayesian statistical methods

Awards & **Fellowships**

Dec., 2018 - Neural Information Processing Systems Travel Grant Dec., 2018-2017 - Woman in Machine Learning Travel Grant Sept., 2018-2022 - Departmental fellowship, CogSci department, UCSD March, 2018 - Cosyne Presenters Travel Grant (one of 20 recipients) Sept., 2017 - UCSD Graduate Student Travel Grant

Sept., 2016 - Departmental fellowship, ECE department, UCSD Sept., 2013-2015 - Merit based departmental scholarship, BIT

Sept., 2012 - Mizuho Scholarship