ARNOLD SEONG

former poet, current Statistics PhD student

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SELECT EXPERIENCE

Data Scientist Intern
Amazon, Alexa Automatic Speech Recognition (ASR)

📅 Jun 2021 – Sept 2021   📍 remote

- Designed Bayesian Additive Regression Tree model predicting whether customers will engage in a business-critical behavior. Achieved 75% higher precision and 2% higher recall over existing ML models.
- Analyzed key customer behaviors using large, distributed database.
- Built inferential models to identify customer segments and business domains where ASR improvement could have highest impact.

Graduate Student Researcher
University of California Irvine

📅 Sept 2019 – Ongoing   📍 Irvine, CA

- Develop methods for local inference in functional regression via Bayesian model selection, with application to ECoG (brain imaging) data and identification of neural correlates.
- Maintain code base, reports, and academic articles on Github.
- Data Science Initiative workshop instructor for R & ggplot2.

Statistical Consultant
EXACTA Media

📅 Oct 2019 – Jan 2020   📍 Irvine, CA

- Assessed omni-channel marketing strategy for national medical franchise; estimated effect of strategy shift.
- Identified redundant or ineffective marketing efforts worth >$60k/month (15% of monthly ad buys) in savings.
- Wrote report of results and recommendations for company executives; model predictions validated in following months.

Lecturer (English Department)
University of California, Irvine

📅 Jan 2012 – June 2017   📍 Irvine, CA

- Developed new writing seminar for Gen 1.5 students.

PROJECTS

Neural Network Compression & Variable Selection 🔗
Adapted Bayesian compression and quantization algorithm for variable/feature selection. Used Python, pytorch, and R

datagoboop: an R package for data sonification 🔗
Led small team in development of modular audio plotting functions.

Machine learning: facial expression classifier 🔗
Built compact convolutional neural network matching pictures of faces to eight different emotions with 80.1% test accuracy. Used Python, TensorFlow, & Keras.

EDUCATION

Ph.D. in Statistics
University of California, Irvine

📅 9/2019 – ongoing   📍 Irvine, CA

M.S. in Statistics
University of California, Irvine

📅 9/2017 – 6/2019   📍 Irvine, CA

M.F.A. in Creative Writing: Poetry
University of Washington

📅 9/2005 – 6/2007   📍 Seattle, WA

B.A. in English
Cornell University

📅 9/2000 – 6/2004   📍 Ithaca, NY

AWARDS

- **Instructor Recognition Award**
  UCI English Dept. teaching award
- **Shortlist, Montreal Poetry Prize** 🔗
  International poetry competition
- **2010-2011 Writer-in-Residence**
  Oregon Literary Arts
- **Best New Poets 2009**
  Annual anthology of emerging poets

SKILLS

R · SQL · git · python · plotly · ggplot2 · tidyverse · R markdown · EDA · data vis · reproducible research · functional regression · Bayesian stats · Bayesian model / variable selection · spatial stats · predictive modeling · BART

COURSES

Bayesian Data Analysis · Spatial Statistics · Longitudinal Data Analysis · Survey Sampling · Multivariate Data Methods · Machine Learning · Advanced R