Bryce Rogan

bryce.rogan@gmail.com | 541.601.5741
1734 N Berendo St., Los Angeles, CA, 90027

EXPERIENCE

LOS ANGELES ANGELS

Quantitative Analyst (Data Scientist)
May 2018 - Present | Los Angeles Angels | Anaheim, CA
Responsible for developing, planning, and implementing a combination of machine learning and statistical analysis to help evaluate and develop baseball players. Use tools such as neural networks - feed-forward, recurrent, and convolutional - gradient boosting, and linear mixed-effects models. Work with coaches and other colleagues outside of the quantitative group to describe and disseminate new information through presentations, conference calls, and written material. Collaborate with the other analysts to share findings, code, data, and ideas to improve research quality.

CLAREMONT GRADUATE UNIVERSITY + LOS ALAMOS NATIONAL LABORATORY

Associate Researcher
Sept. 2017 - May 2018 | Claremont Graduate University (CGU) | Claremont, CA
Worked on a collaborative research project between LANL and CGU, hosting weekly meetings at CGU with conference calls to the LANL team. Developed a combination of long short-term memory networks and graph convolutional neural networks to predict the mechanics of brittle material failure. Constructed several presentations and reports to provide updates to LANL, as well as final presentations to both the CGU and Pomona College math departments. Resulting work was published in the journal Computational Materials Science.

AMALTHEA REU

Student Researcher
Summer 2016 | Florida Institute of Technology | Melbourne, FL
Selected for research experience for undergraduates (REU), funded by the National Science Foundation (NSF), with a specific focus on machine learning. Created a system using pre-trained convolutional neural networks to extract features from frog and toad calls, which were ultimately classified with a support vector machine. Finished with a final presentation to a panel of professors and employees in related industries, and a poster presentation at the International Conference on Acoustics, Speech, and Signal Processing.

EDUCATION

POMONA COLLEGE

B.A. in Mathematics
May 2018 | Claremont, CA
GPA: 3.71/4.0
Applied Mathematics Track

SKILLS

PROGRAMMING

Python • R • SQL • Keras
LaTeX • Tensorflow • PyTorch
Matlab

OTHER

Git • Adobe Photoshop • Adobe InDesign • Microsoft Excel

RESEARCH

LEARNING TO FAIL: PREDICTING FRACTURE EVOLUTION IN BRITTLE MATERIALS USING DEEP LEARNING

by Max Schwarzer, Bryce Rogan et al.
Modeled the propagation of fractures in brittle material using an architecture composed of graph convolutional networks and long short-term memory networks, extracting information such as time to failure and feature importance.
In: Computational Materials Science 162, 322-332 (2019)

ANURAN CALL CLASSIFICATION WITH DEEP LEARNING

by Julia Strout, Bryce Rogan et al.
Classified frog and toad calls via their spectrograms using deep learning, specifically convolutional neural networks (CNNs). Applied transfer learning concepts with pre-trained CNNs to use a CNN as a feature extractor for later classification by a support vector machine.
In: International Conference on Acoustics, Speech, and Signal Processing (ICASSP), New Orleans, LA, March 5-9, 2017