MICHAEL CULLAN

Machine Learning Engineer

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Github (https://github.com/mcullan) | Portfolio (https://michaelcullan.com) | LinkedIn (https://linkedin.com/in/mcullan) | Twitter (https://twitter.com/michaelcullan)

Experience

Comet ML

Machine Learning Engineer — Sep 2021 - Mar 2022

- Built new tools, features, and integrations to better support deep learning and computer vision workflows on Comet, notably GPU profiling visualizations for large sets of training runs.
- Contributed across Engineering, Growth, Research, and Customer Success teams to make Comet a best-in-class MLOps platform.

The Data Incubator

Data Scientist in Residence — Apr 2019 - Aug 2021

- Designed and delivered industry trainings for data science practitioners.
- Contributed to backend engineering for company website and scalable JupyterHub deployments.

Arizona State University

Graduate Research Assistant — Oct 2016 - Dec 2019

- Designed an algorithm and authored an R package for performing model selection with desired (e.g. 95%) confidence level.

University of Washington

Summer Research Scholar — 2017

- Simulated the spread of epidemics and vaccination effects with Markov Chain Monte Carlo methods.

University of Arizona

Undergraduate Research Assistant — Sep 2015 - May 2016

- Built data validation tool to find discrepancies in human v.s. automated music transcriptions.

Publications

M. Cullan,B. Sterner,S. Lidgard, "Controlling the error probabilities of model selection information criteria using bootstrapping", *Journal of Applied Statistics*, vol. 47, pp. 2565-2581, 2020.

Skills

Data Processing and Analysis: Machine Learning (6 years); Tensorflow (4 years); Spark; Pandas; Scikit-learn; PyTorch (3 years); MLOps

Visualization and Dashboards: D3; Tableau; Shiny; Streamlit

Programming: Python; R; SQL; Bash; Typescript

Production and Cloud: Kubernetes; Docker; Git; CI/CD; AWS/GCP; API design; React; Svelte; Flask

Education

MS Statistics

Arizona State University
2016 - 2019

BS Mathematics

University of Arizona
2012 - 2016

Projects

Blender Add-on: Anamorphic Images

Python add-on for the open-source 3D rendering suite Blender, which allows users to create anamorphic illusions and impossible objects.

Tensorflow for Snapchat Lenses

Custom Javascript for Snapchat LensStudio. Uses handtracking to control the inputs of a VAE model and visualize its outputs.