

Charlie Guthrie

Data scientist and visualization engineer

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WORK

Udemy

Sr. Data Scientist

Apr 2019 - Present

- Marketplace for online courses. Defined metric for learning engagement, convinced leadership to make it a company-level KPI. Led team project to expand tracking beyond video consumption to include quiz, labs, and exercises.
- Built model to study drivers of learning engagement. Achieved 11% YoY increase in learning engagement.
- Lead effort to establish culture of experimentation & provide tools for easier analysis & faster iteration.

Facebook

Data Scientist

Jul 2017 - Mar 2019

- Developed accuracy measurement for Facebook's content moderation systems, which remove porn, hate speech, etc. from 40M posts per month.
- Determined appropriate metrics, sampling distribution, and headcount requirements for measuring accuracy of 15,000 content moderators.
- Provided analytics to identify areas for improvement. Team was able to reduce errors by 40% in a year.
- Developed model to identify ambiguous cases, which realigned team to focus on improving accuracy in more actionable, straightforward cases.

Amazon (Audible)

Data Science Intern

Spring 2017

- Natural language processing research at leading audiobook provider.
- Clustered user comments and identified representative samples.
- Keyword extraction and automatic summarization of Audible's library.

Cadent

Data Science Intern

Summer 2016

- TV & digital advertising network. Used variational auto-encoding to simulate & preserve sensitive data, critical for our forecasting models.
- Overhauled design of ad forecasting system.

New York Times

Data Vis Engineer

May 2013 - Jun 2015

- Broadly expanded data literacy, access, and decision-making by developing interactive visual dashboard used for business intelligence analytics across 10+ departments, including finance & advertising.

EDUCATION

See projects at charlieguthrie.com

New York University

Sep 2014 - May 2017

MSc Data Science

- Coursework included Statistics, Deep Learning, Machine Learning, Big Data, Inference, Natural Language Processing, and Algorithms

Dartmouth College

Sep 2003 - Jun 2007

B.A. Mathematics

- Coursework included Mathematical Statistics, Modeling, CS

SKILLS

Data Science

- SQL/Hive; Analysis in Python (Pandas, NumPy, SKLearn), R, Excel; deep learning with Tensorflow/Torch.

Data Vis / Front-end

- HTML, CSS, Javascript, specializing in D3 and JQuery.

Other

- Shell scripting; French; Comics at [instagram.com/charlesdguthrie](https://www.instagram.com/charlesdguthrie)