Personal information

Surname(s) / First name(s)

Bargteil, Dylan Zachary

Profile

PhD physicist with 5 years experience in quantitative analysis (Python/MATLAB), interested in applying skills to social dynamics, behavior, and problems.

Education

New York University
Sept 2012 - March 2017
New York, NY

M.S., **Ph.D.** in Physics

- Research Topics: Biomimetics and self-assembly in meso-scale soft condensed matter systems

University of Maryland
Sept 2008 - May 2012
College Park, MD

B.Sc Physics, **B.Sc** Mathematics

- Banneker-Key Scholar (top 1% of admitted students)

Skills & Languages

Python, Image Analysis, Neural Networks (Keras/TensorFlow), Machine Learning, SQL, Spark, Web Scraping

Work Experience

The Data Incubator
October 2017 – Present

Data Scientist in Residence

- Develop curriculum for courses ranging from introductory programming to advanced distributed computing and machine learning
- Guide students in lecture and discussion formats, in person and online, and manage web-based course administration applications

Fast Forward Labs
August 2017 – October 2017

Data Scientist (Contract)

- Programmed recurrent convolutional neural network for labeling laparoscopic colorectal surgery with relevant procedural labels
- Wrote research report for medical robotics client and presented findings at MICCAI 2017 conference

The Data Incubator
March 2017 – May 2017

Fellow

- Fellowship for academics transitioning into data science (2% admittance rate)
- Completed analytic miniprojects analyzing NYC restaurant health data, GBs of XML/text from Wikipedia and Stack Exchange, and web-scraped photo captions

New York University
August 2013 – March 2017

Research assistant

- Engineered self-assembling system of particles and demonstrated spontaneous formation of polymeric chains
- Developed image analysis tools for 3D video data ($\sim$ 50x 1GB videos)
- Vectorized existing codebase yielding 500x speedup

New York University
University of Maryland
January 2013 – December 2013
November 2009 – May 2012

Teaching assistant & Tutor

- Taught introductory physics recitation and lab classes ranging from 4 to 20 students
- Engaged students with creative DIY projects (“learning-by-doing”)
- Designed individual and group exercises and assessments developing students’ mathematical literacy