Morgan Bryant

Preferred email: mrbryant@alumni.stanford.edu Cell: 773-623-9916
Personal websites: taoketao.github.io/, github.com/taoketao/ Location: San Francisco Bay Area, CA

Stanford graduating student advancing a career in Research Data Science

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Skills highlights and overview

Scientific Research
- Aspiring researcher focused on using technical, statistical, data-driven experiments to answer crucial questions

Data Science and Machine Learning Engineering
- Specialty: Deep Machine Learning. Implemented 40+ machine learning models and 25+ artificial neural networks.

Software Development
- Specialty: Python Engineering. Regular use in university and industry for 6 years.

Graduate and undergraduate student of Computer Science and Symbolic Systems at Stanford University

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Highlighted Projects

Much of the recent work I'm most proud of has been done in association with Stanford's Parallel Distributed Processing Lab.

<> Frames of Reference for Neural Pathfinding Navigation – undergraduate thesis
- We investigated how artificial neural networks, as models of human spatial cognition, learn to navigate through mazes.
- Developing and training deep reinforcement learning networks (the subjects of the experiments) was central.
- I learned and spearheaded the full research pipeline.
- This scientific research was a good fit for me: the problem solving and experiment process matched my talents.

<> Human Parallel Use of Spatial Frames of Reference – master's thesis
- We used human behavioral experiments to investigate foundations of human spatial cognition and decision making.
- Experiments involved human subjects. Some constructed apparati were: full websites and data processing pipelines.
- Again, I applied, practiced and led the full research pipeline. I experienced building off my prior work.
- Through this project, I verified my passion to continue as a technical researcher.

<> Machine learning has been the basis of many of my other noteworthy projects in schoolwork, research, and industry.

Technical Positions

Lab Researcher // Parallel Distributed Processing Lab // Stanford Department of Psychology // August 2016—present
- The "PDP Lab," led by Jay McClelland, investigates neural network models of cognition.

Master's Student // Symbolic Systems Program // Stanford University // August 2017—present
- Computational Track
- Coursework in computer science, psychology, linguistics, philosophy
- Status: all coursework finished; all in-person lab work finished; remaining for the thesis is finishing writing. Expected conferral: December 2020 or March 2021.

Undergraduate Student // Computer Science // Stanford University // Conferred June 2019
- Concentration in Artificial Intelligence
- Coursework in computer science, data science, statistics, applied math, machine learning, liberal arts

Computer Vision Intern // Magic Leap // Mountain View, CA // Summer 2017

Machine Learning Intern // Trove // San Francisco, CA // Summer 2016

Other competencies:
- JavaScript, HTML, C++, C#, SQL, Matlab; Linux, Windows, Mac OSX; git, bash; RESTful APIs, Ajax
- AWS Amazon Web Services, big data engineering, databases, remote clustered servers, Mechanical Turk
- Full stack, back-end, front-end, UI/UX exposure; systems programming, GPU hardware acceleration
- Python 2.7 and 3.4–3.6, pip, IPython, Jupyter, Numpy, Scipy, Matplotlib, Tensorflow, Keras, PyTorch
- Machine learning, train dev test datasets, supervised, unsupervised, regression, classification, prediction, optimization
- RNN, LSTM, CNN, RL Reinforcement Q-learning, backpropagation, A3C, AlphaGo, GAN, RAM, NTM, ResNet
- NLP Natural Language Processing, Computer Vision, K-means clustering, Agglomerative Hierarchical clustering
- Data analysis, scientific method, computational cognitive neuroscience, foundations of human 3D spatial cognition