Brandon Rohrer

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505-803-6175

Expertise General-purpose machine learning algorithms. Modeling intelligent behavior.

Experience

BECCA, a neuroscience-inspired learner 2006 – current
Algorithm creator, open source software engineer and architect

Created deep unsupervised and reinforcement learning algorithms to achieve intelligent behavior in general learning and robot control tasks. The algorithms are source agnostic–they take input information of any type, including video, audio, text and symbols. (github.com/brohrer/becca)

DuPont Pioneer 2013 – current
Data Scientist

Subject matter expert in predictive modeling of complex biological systems. Created new data-driven crop models. Managed noisy biological data using robust statistics and probabilistic representations.

Team leader for the Boston area, supervising data scientists, students, agronomists and software developers in reaching concrete research and product milestones.

Sandia National Laboratories 2002 – 2013
Principal Member of the Technical Staff, DOE Q Clearance

Subject matter expert in machine learning, artificial intelligence, modeling cortical and subcortical neural structures, modeling human learning and performance, signal processing, image processing and robot hardware integration.

Principal Investigator for internally funded R&D projects developing voice-controlled mobile robots, anomaly detection in heterogeneous data and a human augmentation exoskeleton. **Team leader** supervising electronics, mechanical, programming and materials experts, students and staff.

Education

Massachusetts Institute of Technology MS: 4.95/5.0, PhD: 4.6/5.0
MS and PhD Mechanical Engineering, minor in writing
National Science Foundation Fellowship

Brigham Young University 3.8/4.0
BS Mechanical Engineering *cum laude*
Ezra Taft Benson (Presidential) Scholarship, National Merit Scholarship

Toolbox Python, numpy, MATLAB and Java. Advanced beginner in C/C++. Developed in Windows, OS X and Linux. Worked with SQL, MongoDB and AWS.

Papers 12 journal articles, 39 conference papers, 4 book chapters, 3 patents. github.com/brohrer/publications