DanielLaCombe

computer vision scientist

Address

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Apartment Unit J222
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Contact

302.312.3975
dlacombe2013@
fau.edu

Web & Git

dlacombejr.github.io
github.com/dlacombejr

Programming

Python, Theano,
scikit-learn
SciPy, numpy, NLTK
Matlab
Weka, R
LaTeX, Git
NetworkX
EC2, S3, boto

Skills

Coding
Writing
Public Speaking

Hobbies

Music Composition
Instrumental
Progressive
Ambient
Mathrock
Rock Climbing
Bouldering
Lead/Sport

Reference

Elan Barenholtz
FAU, Psychology
561.297.3433
elan.barenholtz@
fau.edu

Education

2013 - Now **Ph.D., Psychology exp. May 2016** Florida Atlantic University, Boca Raton, FL
Advisor: *Elan Barenholtz*
Dissertation: *Emergence of Taxonomical Categories in Deep Learning*
Awards: *2015 FAU GRIP Grant*

2011 - 2013 **M.A., Experimental Psychology** Appalachian State University, Boone, NC
Advisor: *Christopher A. Dickinson*
Thesis: *Semantic Consistency in Boundary Extension*

2007-2011 **B.A., Psychology** University of Delaware, Newark, DE
Advisor: *James E. Hoffman*

Experience

2013 - Now **Graduate Research** Florida Atlantic University, Boca Raton, FL
// Investigating deep learning models for unsupervised representation learning of semantic taxonomies based on statistics of natural images
// Explored novel feature extraction methods for predictive decoding of user intentions based on recorded eye movements using machine learning algorithms (support vector machines) and advanced quantitative methods (recurrence quantification analysis)
// Developed a good understanding of basic statistics and probability theory during my studies

2014 - Now **Software Development** Florida Atlantic University, Boca Raton, FL
// Developed and maintained software that constructs hierarchical representational models using machine learning libraries in Python (Theano, scikit-learn, scipy.optimize)
// Implemented code in Amazon Web Services EC2 g2.2xlarge GPU instances with custom Amazon Machine Image for runtime performance optimization
// Regularly refine code to increase scalability and generalization performance to new demands

2014 - Now **Distributed Version Control** Florida Atlantic University, Boca Raton, FL
// Maintain all code using Git version control and utilize Github to store/share code
// Contribute to Machine Perception and Cognitive Robotics lab using Git version control

Publications

Hahn, W. E., Lewkowitz, S., Lacombe Jr., D. C., & Barenholtz, E. (2015). Deep learning human actions from video via sparse filtering and locally competitive algorithms. Multimedia Tools and Applications, 1-14.

Dickinson, C. A., & LaCombe Jr., D. C. (2014). Objects influence the shape of remembered views: Examining global and local aspects of boundary extension. Perception, 43, 731-753.

Dickinson, C., LaCombe, D., Nichols, J., Hinnant, S., Rickard, E., & Sternbergh, X. (2012). Using boundary extension to assess memory for scene views across changes in object orientation. Journal of Vision, 12, 1071-1071.