

# Daniel LaCombe

Ph.D. Candidate | CTO, VoxelRx

## Address

3375 Jaywood Terrace  
Apartment Unit J104  
Boca Raton, FL 33431

## Contact

302.312.3975  
dlacombe2013@  
fau.edu

## Web & Git

voxelrx.com  
dlacombejr.github.io  
github.com/dlacombejr  
kaggle.com/dlacombejr

## Programming

Python, Theano,  
Keras, TensorFlow  
scikit-learn  
NumPy, SciPy  
AWS, EC2, S3, boto  
Matlab  
Weka  
L<sup>A</sup>T<sub>E</sub>X, Git  
NetworkX, NLTK

## 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 2017** [Florida Atlantic University, Boca Raton, FL](#)  
Advisor: *Elan Barenholtz*  
Dissertation: *Emergence of Taxonomical Categories in Deep Learning*
- 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 and advanced quantitative methods for feature extraction
- 2014 - Now **Chief Technology Officer** [VoxelRx, Boca Raton, FL](#)  
// Developed and maintained software for automatically detecting neurodegenerative diseases from structural Magnetic Resonance Imaging data  
// Beginning to manage software development team as we expand and also seeking external consultancy contracts for machine learning

## Awards

- 2015 - 2016 **1<sup>st</sup> Place Poster Brain Sciences Graduate Research Day FAU**  
2015 - *Task Decoding Using Recurrent Quantification of Eye Movements*  
2016 - *Emergence of Semantic Continuity in Deep Neural Networks*
- 2016 **4<sup>th</sup> Place in CrowdAnalytix Data Science Competition**  
// Competition title – “Extraction of product attribute values”  
// Novel application of deep learning techniques to RegEx problem
- 2016 **Singularity University Global Impact Challenge Runner-up**  
One of four given opportunity to interview based on pitch of VoxelRx
- 2015 **FAU Graduate Research and Inquiry Program Grant**  
Awarded \$1,500 to cover GPU cloud costs for researching deep learning
- 2013 - 2015 **Florida Atlantic University Presidential Fellowship**  
Awarded as recruitment incentive for superior doctoral students

## 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. *Multi-media 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.