

David A. Nicholson  
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### **Skills Summary**

- Applied machine learning, deep learning, data science and software engineering in Python: 4+ years
  - libraries: numpy, scipy, matplotlib, Tensorflow, PyTorch, scikit-learn, pandas, seaborn
- Data exploration, analysis, statistics, and visualization in MATLAB: 6+ years
- Project management, technical communication, teaching, tutoring, mentoring: 8+ years

### **Experience**

**Machine Intelligence Engineer**, Embedded Intelligence, DC metro area *November 2020-Present*

- work on adversarial machine learning (DARPA [GARD](#) and [RED](#) programs) and signal restoration

**Postdoctoral fellow**, Prinz lab, Emory University, Atlanta, GA *April 2018-October 2020*

- Developed continual machine learning algorithms based on neuroscience of goal-driven perception:  
<https://github.com/NickleDave/MetaNickleDave#visual-search-and-visual-attention>

**PhD in Neuroscience**, Sober lab, Emory University, Atlanta, GA *March 2011-August 2017*  
**Postdoctoral fellow** *September 2017-March 2018*

- Developed libraries to automate annotation of animal vocalizations (see also publications):  
<https://github.com/NickleDave/MetaNickleDave#data-science-tools-for-birdsong-and-other-vocalizations>
- Designed, carried out, and published experiments that identified novel connections between brain areas that control vocalization in a songbird: <https://onlinelibrary.wiley.com/doi/full/10.1002/cne.24428>

**Organizer**, Emory graduate data science group *August 2017-Present*

- Organized meetings, events, and online presence: <https://data-science-for-scientists-atl.github.io/>
- Helped group successfully apply for a charter and secure annual budget from graduate student government
- Successfully requested funding from other groups on campus for two well-attended Software Carpentry workshops, e.g., <https://data-science-for-scientists-atl.github.io/2019-02-09-emory/>

### **Education**

- Ph. D. in Neuroscience, Emory University, Atlanta, GA. August 2017.
- B.S. in Biology (Summa Cum Laude), University of South Florida, Tampa, FL. Minor in Spanish. May 2010.

### **Languages**

Native English speaker.

Spanish. Conversational level: fluent; written level: academic.