Your first neural network

## Your first neural network

### **Project Submission**

**DUE** Feb 11

### Your First Neural Network

#### Introduction

In this project, you'll get to build a neural network from scratch to carry out a prediction problem on a real dataset! By building a neural network from the ground up, you'll have a much better understanding of gradient descent, backpropagation, and other concepts that are important to know before we move to higher level tools such as Tensorflow. You'll also get to see how to apply these networks to solve real prediction problems!

The data comes from the UCI Machine Learning Database.

#### Instructions

Download the project materials from our GitHub repository. You can get download
the repository with git clone https://github.com/udacity/deep-learning.git.
 Our files in the GitHub repo are the most up to date, so it's the best place to get the
project files.



#### Your first neural network

4. Create a new conda environment:

conda create --name dlnd python=3

- 5. Enter your new environment:
  - Mac/Linux: |>> source activate dlnd
  - Windows: |>> activate dlnd
- 6. Ensure you have numpy, matplotlib, pandas, and jupyter notebook installed by doing the following:

conda install numpy matplotlib pandas jupyter notebook

7. Run the following to open up the notebook server:

jupyter notebook

- 8. In your browser, open Your\_first\_neural\_network.ipynb
- 9. Follow the instructions in the notebook; they will lead you through the project. You'll ultimately be editing the my\_answers.py python file, whose components are imported into the notebook at various places.
- 10. Ensure you've passed the unit tests in the notebook and have taken a look at the rubric before you submit the project!

If you need help running the notebook file, check out the **Jupyter notebook lesson**.

#### **Submission**

Before submitting your solution to a reviewer, you are required to submit your project to Udacity's Project Assistant, which will provide some initial feedback. It will give you feedback within a minute or two on whether your project will meet all specifications. It is possible to submit projects which do not pass all tests; you can expect to get feedback from your Udacity reviewer on these within 3-4 days.

The setup for the project assistant is simple. If you have not installed the client tool from a different Nanodegree program already, then you may do so with the command

pip install udacity-pa.



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using google or facebook, visit this link for alternate login instructions.

This process will create a zipfile in your top-level directory named first\_neural\_network-result-.zip, where there will be a number between result- and .zip. This is the file that you should submit to the Udacity reviews system.

Upload that file into the system and hit Submit Project below!

If you run into any issues using the project assistant, please check **this page** to troubleshoot; feel free to post your problem in **Knowledge** if it isn't covered by one of the displayed cases!

#### What to do afterwards

If you're waiting for new content or to get the review back, here's a **great video from Frank**Chen about the history of deep learning. It's a 45 minute video, sort of a short documentary, starting in the 1950s and bringing us to the current boom in deep learning and artificial intelligence.

# Al and Deep Learning

FRANK CHEN

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Congratulations! You've completed this project

VIEW SUBMISSION