Daniel McNeela

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EDUCATION

UNIVERSITY OF CALIFORNIA, BERKELEY
B.A. in Applied Mathematics
Focus in computer science
College of Letters and Sciences
May 2017 | Berkeley, CA

LINKS

Github:// **mcneela**
LinkedIn:// **daniel-mcneela**

COURSEWORK

Algorithms
Data Structures
Machine Learning
Special Topics in Deep Learning
Topology and Measure Theory
Neural Computation
Numerical Analysis
Mathematical Logic
Computational Linguistics
Natural Language Processing Research Seminar
Honors Multivariable Calculus
Honors Linear Algebra and Differential Equations
Honors Abstract Algebra
Real Analysis
Complex Analysis
Advanced Linear Algebra
Structure and Interpretation of Computer Programs
Introductory Neuroscience

TECHNICAL SKILLS

HIGH LEVEL
Machine Learning • Data Science
Deep Learning • NLP • Technical Writing
PROGRAMMING
Proficient
Python • Matlab • Java • Javascript
Scikit-learn • Matplotlib • Git
Familiar
C • Tensorflow • Keras

EXPERIENCE

INTERNATIONAL NEUROINFORMATICS COORDINATING FACILITY | Software Engineer - Google Summer of Code

- Developed tools for scientific visualization using Matplotlib and Plotly.
- Wrote 10,000 lines of code in Python and Javascript.
- Rewrote the core module using object-oriented principles, paring thousands of lines of code down to an equivalent few hundred.
- Implemented and created visualizations of a variety of neural computational models such as the Hopfield Network, Restricted Boltzmann Machine, and McCulloch-Pitts Neurons.
- Implemented the Sammon Mapping non-linear dimensionality reduction algorithm, and provided visualizations for the Locally Linear Embedding and related algorithms.

ELITE EDUCATIONAL INSTITUTE | Mathematics Instructor

- SAT Preparation
- ACT Preparation
- ISEE Preparation
- AP Calculus Tutoring

UC BERKELEY COMPUTER SCIENCE DEPARTMENT | Course Reader and Tutor

- Graded assignments, provided instruction, and prepared teaching materials.
- Led weekly supplemental course sections
- Assisted in the development of section teaching materials

PROJECTS

DEEP LEARNING RESEARCH PROJECT | Keras, Tensorflow, Python
Under current development

- Research project for CS 294-131: Special Topics in Deep Learning
- Using LSTMs and other models to generate working Python code from natural language descriptions.
- Aggregating and generating training sets suitable for this task.

PERSONAL WEBSITE | HTML, CSS, Javascript, Jekyll, Ruby
Developed in 2016

- Implements a Jekyll backend
- Templating via Liquid
- Implemented a custom reading feed using a Ruby script to access the GoodReads API

AWARDS

2012 National Merit Finalist
2012 National AP Scholar
2012 Rensselaer Medal