Daniel McNeela

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EDUCATION

UNIVERSITY OF CALIFORNIA, BERKELEY

B.A. in Applied Mathematics
College of Letters and Sciences
Aug. 2012 - May 2017 | Berkeley, CA

SAN DIEGUITO ACADEMY

High School
Aug. 2009 - Jun. 2012 | Encinitas, CA

LINKS

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

COURSEWORK

Algorithms
Databases
Data Structures
Machine 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

PROGRAMMING

Proficient
Python • Matlab • Javascript • Scikit-learn • Matplotlib • Git
Familiar
C • Java

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 CS 70 | Course Reader

- Graded assignments, provided instruction, and prepared teaching materials.

UC BERKELEY CS 61A | Undergraduate Tutor

- Led weekly supplemental course sections
- Assisted in the development of section teaching materials

PROJECTS

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

SCHEME INTERPRETER | Python 3

Developed in 2013

- Interpreter for the functional language Scheme.
- Course project for CS61A at UC Berkeley.

AWARDS

2012 National Merit Finalist
2012 National AP Scholar
2012 Rensselaer Medal