Alan Nguyen

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EDUCATION

UNIVERSITY OF CALIFORNIA, BERKELEY

2017 - 2019

Computer Science, B.A.

- > CS170 / Efficient Algorithms & Intractable Problems*
- > CS61C / Machine Structures*
- > DS100 / Principles and Techniques of Data Science*
- > CS61B / Data Structures
- > CS61A / Structure & Interpretation of Computer Programs
- > Math 110 / Linear Algebra
- > CS70 / Discrete Mathematics & Probability Theory

** Spring 2018*

DE ANZA COLLEGE

2015 - 2017

Mathematics & Computer Science

GPA: 3.75/4.0

- > CIS 22C / Data Abstraction & Structures
- > MATH 1D / Multivariable Calculus
- > MATH 2A / Differential Equations
- > MATH 2B / Linear Algebra
- > MATH 10 / Elementary Statistics

PROJECTS

DEEPFRANK

Fall 2017 - Present

- > Independently study machine learning and natural language processing with Python and TensorFlow.
- > Create an algorithm that learns how to generate new lyrics based on the music artist Frank Ocean using a Sequence-to-Sequence LSTM neural network.

GITLET

Fall 2017

- > Constructed a variation of git from scratch in Java.
- > Implemented a wide variety of git commands, not limited to: merge, push, checkout, fetch, commit. Also expanded these commands for compatibility with remote repositories.
- > Serialized and deserialized commits and blobs in order to construct an implicit data structure with efficiency.
- > Implemented SHA-1 hashing in order to identify unique commits and blobs.

DATABASES

Fall 2017

- > Independently designed a scaled-down version of a relational database management system.
- > Constructed a restricted dialect of SQL in Java in order to communicate with the database consisting of a sample of UC Berkeley student data.
- > Organized student data using HashMaps and ArrayLists.

AUDIOCRAWLER

Spring 2017

- > Investigated deep learning and music genres during LAHacks 2017 with a group of four. Used Python, TensorFlow, and Librosa.
- > Processed a music database of 10,000 songs, then used audio spectrograms in order to classify music genres.
- > Predicted music genres based on user input with a LSTM neural network.

SKILLS

- > LANGUAGES: Java, C++, Python, HTML, CSS, SQL, LaTeX
- > TOOLS: Git, TensorFlow, Keras