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## **EDUCATION**

## **CORNELL UNIVERSITY**

# BA IN MATHEMATICS AND COMPUTER

SCIENCE

Expected May 2021 | Ithaca, NY

College of Arts and Sciences

Dean's List (All Semesters)

GPA:

4.03 / 4.0

Extracurriculurs:

Cornell Data Science

Cornell Putnam Team

Cornell ACM-ICPC

#### HIGHLANDS RANCH HS

Grad. May 2017 Highlands Ranch, Colorado Class Valedictorian.

## COURSEWORK

#### **GRADUATE**

- Enumerative Combinatorics
- Real Analysis
- Probability Theory I

#### UNDERGRADUATE

- Object Oriented Programming and Data Structures (Honors)
- Discrete Structures
- Data Structures and Functional Programming
- Honors Linear Algebra
- Computer System Organization and Programming
- Introduction to the Analysis of Algorithms

#### **SELF-STUDY**

- Convolutional Neural Networks For Visual Recognition (Stanford CS231n)
- Deep Reinforcement Learning (Berkeley CS294)

# SKILLS

#### **LANGUAGES**

Java • Python • C++ • OCaml • Javascript • CSS • C.

#### **TECHNOLOGIES**

TensorFlow • Keras • Scipy

- WebSockets Flask Spark
- NodeJS Git LATEX Markdown

## **EXPERIENCE**

# CORNELL UNIVERSITY | UNDERGRADUATE RESEARCH

**ASSISTANT** 

August 2018 - Present | Ithaca, NY

Researching Neural Network representations and learning under Professor John Hopcroft.

# LOGOS NEWS LLC | DATA SCIENTIST/NLP ENGINEER

July 2018 - Present | Los Angeles, CA

Led team of 4 other interns to develop machine learning algorithms for a news recommendations. My contributions were:

- Developed a neural network to extract user features from comments with limited training data and transfer learning with up to 80% accuracy.
- Developed an autoencoder for news recommendation using semi-supervised NLP clustering.
- Built a data pipeline to clean, vectorize, and model text snippets. Deployed over Google Cloud App Engine using Flask.

#### **CORNELL DATA SCIENCE** | SUBTEAM MEMBER

September 2017 - Present | Ithaca, NY

- Spring '18: Deep Learning Subteam. Researched neural networks for music generation.
- Fall '17: Kaggle Subteam. Competed in Kaggle Competitions.

# **PROJECTS**

## **TENSORFORCE** | Code Contributor

Jun 2018 - Present

Tensorforce is one of the most popular open source reinforcement learning libraries in TensorFlow.

- Implemented bindings for reinforcement learning environments.
- Integrated Deep Learning features and Reinforcement Learning actors.

#### **GAN Q-LEARNING | OWNER**

Jul 2018 - Present

Provided the first open source implementation of **GAN Q Learning**, an intersection between reinforcement learning and generative modelling.

# AWARDS

2018	1 <sup>st</sup> place	Cornell Mathematics Freshman Exam
2018	4 <sup>th</sup> place	Rochester Math Olympiad
2017	top 300/10,000	USA Mathematics Olympiad Qualifier
2016	Milestone	Eagle Scout
2016	top 500/2000	Siemens Competition Semifinalist
2016	top 100/2000	USA Computing Olympiad Platinum Division