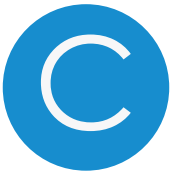

Chase Roberts

Computer Science • Machine Learning

Contact

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(507)-461-5169

Github

github.com/Thenerdstation

Website

Thenerdstation.github.io

Coding Skills

Python
C++
C
Tensorflow
Javascript
C#
Java
CUDA
MPI
Spark
Hadoop

Honors

UPE CS Honor Society
President Spring 2016
Deans List
2014 - 2017

Competitions

Northsec
Second Place 2016
Microsoft BTS
Second Place 2015
HackRPI
Prize Winner 2014

Relevant Courses

Machine Learning
Graduate Algorithms
Parallel Programming
Binary Exploitation
Mathematical Statistics
Real Analysis
Linear Algebra
Data Structures
Quantum Physics

Foreign Languages

German - Intermediate
Spanish - Elementary

Hobbies

Rock Climbing
Photography
Film making

Current Education

Rensselaer Polytechnic Institute - Class of 2018

- GPA: 3.77 Major GPA: **3.93**
- Recipient of the Lally Bicentennial Award
- Working towards a Bachelor Degree in Computer Science and minor in Mathematics
- Expected graduation May 2018

Software Engineering & Research Internships

Google Brain - Mountain View, CA

January 2017 - April 2017

- Machine learning robotics research intern.
- Implemented knowledge transfer algorithm between simulated and real robots with Progressive Neural Networks.
- Showed union dataset training outpreformed baslines by 15% in grasp success rates.
- Implemented reinforcement learning architecture for the grasping experiments.

Bloomberg L.P. - New York City, NY

Summer 2017

- Researched and invented novel text data anomaly detection algorithm.
- Algorithm used a combination of character-LSTM, autoencoders, and one class SVMs to detect corrupted strings within our database.
- Used Tensorflow and Spark to process 48 million seperate text entries.
- Optimized system to be able to process 13,300 strings per second.
- Caught over 5,000 unique errors.
- Algorithm had 50% precision when only using 2% of possible training data.

Summer 2016

- Worked on performance analytics and anomaly detection system.
- Ran on distributed Spark clusters.
- Created system that did statistical anomaly detection on gigabytes of performance data every day.
- System caught over 100 critical errors within the following year.

Intentional Software - Seattle, WA

May 2015 - August 2015

- Worked on shader meta program implementation
- Decreased shader build time from 20 minutes to a 30 seconds with dynamic compilation
- Added features to the 2D Geometry API, focusing on efficient elliptical and Bezier curves rendering

Undergraduate Research

SCOREC - Supercomputing Research

September 2015 - December 2015

- Created experimental automatic differentiation C++ data type
- Can take arbitrary derivatives of functions without major refactoring of existing code
- Arbitrary derivatives were created by doing recursive type templating
- The code is open-sourced and can be seen on SCOREC's github

Extra Curricular

UPE Computer Science Honor Society

Inducted Fall 2015

- **Elected President Spring 2016**
- Helped oraginze several tech talks, including a talk in NLP, Deep Learning, and Microsoft Azure.
- Raised $2,300 and wrote several problems for our biannual programming competition
- Oragnized several tutoring sesions for CS1 and Data Structures

RPISEC

Member since Spring 2015

- Gave a Reverse Engineering talk to over 20 students.
- Competed in Northsec 2016 and Microsoft Build the Shield taking second in both
- Helped write problems for our Fair Game on campus CTF.