Chase Roberts

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Github
github.com/Thenerdstation

Website
Thenerdstation.github.io

Coding Skills
Python
C++
C
Javascript
C#
Java
CUDA
MPI
Spark
Hadoop

Honors
UPE CS Honor Society
President Spring 2016
Deans List
2014 - 2016
Delta Phi
Highest GPA Fall 2015

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: 3.86 Major GPA: **3.91**
- Recipient of the Lally Bicentennial Award
- Working towards a Bachelor Degree in Computer Science and Mathematics
- Expected graduation May 2018

Software Internships
Bloomberg L.P. - New York City, NY
June 2016 - Present
- Working on performance analytics and data quality control system
- Both systems run on distributed Spark clusters
- Created system that did statistical anomaly detection on gigabytes of performance data a day. Caught 8 unique errors during my internship.
- Used data to classify fields into different clusters. Classifications are now being used throughout Bloomberg for server request load balancing
- Designed genetic regex generator algorithm for our data quality control system. Then genetic algorithm could create a regex based on a set of match and mismatch strings
- Implemented a character level recurrent neural network that could classify a string input as good or corrupted.

Intentional Software - Seattle, WA
May 2015 - August 2015
- Member of the graphics team
- 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
- Data type can take arbitrary derivatives of functions without any 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 - Present**
- 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 in 2016 and took second
- Competed in Microsoft Build the Shield and took second
- Helped TA the 2016 Modern Binary Exploitation class in 2016
- Helped write problems for our Fair Game on campus CTF