Chase Roberts

Computer Science • Mathematics

Contact

roberc4@rpi.edu
507-461-5169

Coding Languages

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

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
Statistics
Data Structures
Math Analysis
Quantum Physics

Foreign Languages

German - Intermediate
Spanish - Elementary

Hobbies

Rock Climbing
Photography
Film making

Github

github.com/Thenerdstation

Website

Thenerdstation.github.io

Current Education

Rensselaer Polytechnic Institute - Class of 2018

- GPA: 3.86 Major GPA: **3.91**
- Recipient of the 2024 Lally Bicentennial Award
- Enrolled in the School of Science 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 4 unique errors within 2 weeks
- Used data to classify fields into different clusters. Classifications are now being used throughout Bloomberg for server load balancing
- Designed genetic algorithm for our data quality control system. Could create a regex when given a list of strings to match and mismatch
- Also 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
- Also 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**
- Society organizes several events throughout the year, including several tech talks, programing competitions, tutoring sessions, and interview prep
- Raised $2,300 and wrote several problems for our biannual programming competition

RPISEC

Member since Spring 2015

- RPISEC is a highly successful security club at RPI
- Consistently win or place highly in dozens of CTF across the continent
- We invest heavily in teaching new members security skills by teaching classes and giving weekly talks
- Currently creating our first worldwide CTF