

Branton Demoss

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ABOUT

I'm a physics and mathematics student who likes computers, coffee, and bicycles.

EDUCATION

CU BOULDER

BA IN MATHEMATICS AND PHYSICS
Expected May 2018 | Boulder, CO
GPA: 3.8

UNIVERSITY OF OXFORD

2016-2017 | Oxford, England
Visiting Student
Mathematics and Theoretical Physics

COURSEWORK

GRADUATE

Quantum Computing
Quantum Field Theory*
General Relativity*

UNDERGRADUATE

Classical Physics
Quantum Physics
Electricity & Magnetism
Analysis
Abstract Algebra*
Topology*
Differential Geometry*
Number Theory*
Variational Calculus*
Set Theory
Data Structures
Calculus 1/2/3
Differential Equations
Linear Algebra

*Oxford, 2016-2017

SKILLS

PROGRAMMING

Java • Shell Scripting • JavaScript
Mathematica • C++ • \LaTeX • Web design

REAL WORLD

Bicycle maintenance • Espresso shots
Perfect fried eggs • Mandarin • Ukulele

EXPERIENCE

CU MUSEUM OF NATURAL HISTORY | STUDENT ASSISTANT

Aug 2014 – May 2016 | Boulder, CO

- Designed educational science activities
- Community science outreach
- Inspired curiosity about natural world!

RADIO 1190 | DJ - THE INTENTIONAL LISTENER

May 2015 – September 2016 | Boulder, CO

- Specialty show breaking music down lyrically and musically, getting people to think about why musicians make the choices they do
- Discuss current scientific and political issues
- Preach absurd proverbs

TRIDENT | BARISTA

May 2016 – October 2016 | Boulder, CO

- Made delicious coffee and tea
- Ask you about your day \times fivemillionbillion

RESEARCH

MATHEMATICS | KNOT THEORY RESEARCH

June 2016 – Sep 2016 | Boulder, CO

- Wrote paper on introductory knot theory with applications to quantum field theory through the Yang-Baxter equation

PHYSICS | COMPUTATIONAL PARTICLE PHYSICS RESEARCH

May 2015 – May 2016 | Boulder, CO

- Worked with Fermilab to show flaws in experiment using simulations
- Created new particle physics geometry code
- Rewrote crappy physicist code
- Published results

AWARDS

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|------|---------------|-------------------------------------|
| 2016 | National | Gilman Scholarship |
| 2016 | Institutional | Dean's List |
| 2015 | Institutional | Dean's List |
| 2014 | Institutional | CU Esteemed Scholar |
| 2014 | High School | International Baccalaureate Diploma |

REFERENCES

CATHY REGAN, PH.D | EDUCATION COORDINATOR

CU Museum of Natural History | cathy.regan@colorado.edu | 303.492.4843

ROCHELLE RAVISHANKARA, MD | PHYSICIAN

Exempla Saint Joseph Hospital | rrvavishan@comcast.net | 303.931.3798

PETER JONES, PH.D | MANAGER

Trident | trident@indra.com | 303.827.6365