Peter Rock

Curriculum Vitae

peter.rock@colorado.edu

Education

University of Colorado -Boulder August 2013 - May 2018
Graduated Summa Cum Laude with BA in Mathematics and Chemistry
Minors in Theatre, Philosophy, and Dance, and a focus in Computer Science

Research Interests

I am currently interested in researching Discrete Differential Geometry and possible applications to modern computer graphics programming.

Relevant Coursework

Mathematics:
Linear Algebra (A), Discrete Mathematics (B+), Analysis I (A), Analysis II (A), Euclidean and Non-Euclidean Geometry (A-), Abstract Algebra I (A-), Abstract Algebra II (A), Ordinary Differential Equations (A), Differential Geometry of Curves and Surfaces (A), *Modern Algebra I (A), *Modern Algebra II (A), *Probability and Statistics (A), Topology (A), and Complex Analysis (A-).

Chemistry:
General Chemistry (Test), Organic Chemistry I (B), Organic Chemistry II (B-), Physical Chemistry I (B+), Physical Chemistry II (B+), Instrumental Analysis I (A), Instrumental Analysis II (A-), Inorganic Chemistry (A).

Philosophy:
Symbolic Logic (A), Mathematical Logic (A), Modal Logic (A)

Computer Science:
Intro to Python (A), Intro to C++ (A), Data Structures (A), Algorithms (A), Computer Animation (A).

*taken at graduate level

Sholarships/ Awards

CU Esteemed Baker's Scholarship (Awarded Fall 2013)
Dean's List Fall 2013, Spring 2014, Fall 2015, Spring 2016, Fall 2016, and Spring 2017
Phi Beta Kappa Member (Inaugurated Fall 2016)
Jack Hodges Award for Excellence in Mathematics (Awarded Fall 2017)

Relevant Skills/ Experience

Familiar with LaTeX
Experience with Excel
Comfortable Programming in C++, Python, Maple, Mathematica, and LabView.
Familiar with html and css.

Research

Summer 2016 – I worked as part of an REU studying Möbius transformations related to the Schmidt arrangement of $\mathbb{Q}(i)$.

Summer 2017 – I worked as part of a summer REU studying and calculating a formal group laws for p-adic integers. Our calculations were mainly done in $\mathbb{Z}_5$.

Fall 2017 - Spring 2018 - I worked on an independent study project dealing with

the applications of Discrete Differential Geometry to 3D rendering and Geometry processing software. This culminated in an honor's thesis

Presentations

1 November 2016. University of Colorado-Boulder. University Memorial Center. *Looking at the Schmidt Arrangement of* $\mathbb{Q}(i)$

25 February 2017. PPRUMC Colorado College -Colorado Springs. *Continued Fractions and the Schmidt Arrangement of* $\mathbb{Q}(i)$

References

Dr. Jeanne Clelland *University of Colorado Boulder* jeanne.clelland@colorado.edu
Dr. Richard M. Green *University of Colorado Boulder* rmg@euclid.colorado.edu
Dr. Katherine Stange *University of Colorado Boulder* kstange@math.colorado.edu
Dr. Sebastian Casalaina-Martin *University of Colorado Boulder* casa@math.colorado.edu
Dr. Agnes Beaudry *University of Colorado Boulder* agnes.beaudry@colorado.edu