

Christopher Dare

Ph.D. Student — University of California Santa Barbara

christopherdare.com

Education

Ph.D. Mathematics

University of California, Santa Barbara

September 2020 — Ongoing

Isla Vista, CA

- GPA: 4.0 / 4.0
- Member of Algebraic Geometry group at UCSB, researching K3 surfaces and Hyperkahler geometry under Xiaolei Zhao

M.Sc. Mathematics

Virginia Tech

December 2017 — May 2019

- GPA: 3.80 / 4.0
- Masters Thesis: *Turing Decidability and Computational Complexity of Morse Homology*
- Advisor: Bill Floyd

B.Sc Computer Science Engineering

Virginia Tech

September 2015 — December 2019

- GPA: 3.73 / 4.0 (*magna cum laude*)
- Capstone: Protein Folding of TRP-cage using GPU optimization
- Phi Beta Kappa (Honors Society), Pi Mu Epsilon (Honors Society)

B.Sc. Mathematics

Virginia Tech

September 2015 — December 2017

- GPA 3.81 / 4.0 (*summa cum laude*)
- Undergraduate Research: Fourier Analysis of Ambisonic Microphones

Work Experience

Solutions Architect

NetApp

Summer 2019, 2020

Raleigh, NC

- Developed a tool in Python (primarily Flask) which scanned ONTAP operating systems for SCAP / FedRAMP compliance, and encrypted data using standard cipher blocking chaining (CBC) with AES.
- Used VMWare and Elasticsearch to develop a tool which could virtualize NetAPP software given any (reasonable) specifications.

Research Fellow

National Institute of Standards and Technology

Summer 2016

Gaithersburg, MD

- Collected data that would later be used in NISTIR.8114 *Report on Lightweight Cryptography* (L. Bassham et al.).
- Worked under Larry Bassham on profiling lightweight block ciphers (such as SIMON, SPECK, PRINCE and PRESENT) by their throughput, latency, and circuit area.

Areas of Interest

- Algebraic Geometry
- Complex Geometry
- Computational Topology

Honors

Virginia Tech Honors Presidential Scholarship

Virginia Tech

2016–2019

Mathematical Competition in Modelling Honors

American Mathematical Society

2016, 2017

Certificate of Congressional Recognition

U.S. House of Representatives

2016

Teaching

Math 4B: Differential Equations

Math 117: Methods of Analysis

Math 6B: Vector Calculus 2

Math 34A: Calculus for Social Sci

Computer Languages

Python



C



Mathematica



Java



Git



References

Provided upon request