

VISHAL RAMAN

10 Dogwood Dr \diamond Plainsboro, NJ 08536
(925)519-7472 \diamond vraman@berkeley.edu

EDUCATION

University of California - Berkeley(3.8)

August 2019 - Present

Majors: *Mathematics, Computer Science*

RELEVANT COURSEWORK(INCLUDES FALL 2020)

Computer Science - 61B: Data Structures, 170: Algorithms and Intractable Problems, 188: Artificial Intelligence, 189: Machine Learning

Math - 202a: Measure Theory and Topology, 202b: Functional Analysis, 222a: Partial Differential Equations, 250b: Commutative Algebra

Statistics - 150: Stochastic Processes, 205A: Probability Theory,

HONORS

American Invitational Mathematics Exam(AIME) Invitee

Spring 2019

United States of America Physics Olympiad(USAPhO)

Spring 2019

Honorable Mention

United States of America Computing Olympiad(USACO)

Spring 2018

Gold Division

United States of America Mathematics Talent Search(USAMTS)

Spring 2018

Bronze Medalist

Princeton University Physics Competition

Fall 2018

Silver Prize

WORK/VOLUNTEER EXPERIENCE

National Security Agency, Director's Summer Program

Planned Summer 2020

A Mathematics REU in Number Theory and Cryptography. The program was cancelled for Summer 2020 due to the COVID-19 Outbreak.

(UC Berkeley) Course Staff for Math 113

Spring 2020

Course Reader for Math 113: Abstract Algebra, under the supervision of Prof. Mariusz Wodzicki. I wrote up solutions for homework assignments and scored students answers to homework assignments.

PROJECTS

Blackjack Decision Maker

Winter 2020

Models the Blackjack card game as a Markov Decision Process (MDP) and finds optimal values through Value Iteration/Fixed-point iteration. The model takes in a counting strategy as user input.

Gitlet

Fall 2020

Implemented a version-control system that mimics the basic features of the popular system Git(CS61B at Berkeley).

Programming Languages: Python, Java, C++, R, \LaTeX , SQL, HTML, CSS

Libraries/Frameworks: NumPy, pandas, TensorFlow, BigQuery, React.js