# Sriaditya Vedantam

#### EDUCATION\_

## **University of Georgia**

Bachelor of Science, Mathematics

**Expected Spring 2026** 

#### RESEARCH INTERESTS\_

Number Theory with emphasis on primes and cryptology.

Generating lists of large prime numbers using more efficient algorithms.

Interested in post-quantum cryptographic algorithms.

Algebraic Geometry with emphasis on curve solutions.

Interested in modern takes with elliptic curves.

#### **RESEARCH POSITIONS** —

#### **University of Georgia**

**Directed Reading Program Mentee** 

Spring 2023 - Present

Spring 2023 - Focus on Fermat's Little Theorem

Mentored by graduate student Haiyang Wang

Fall 2023 - Focus on Elliptic Curves

Mentored by graduate student Haiyang Wang

## Georgia Institute of Technology

Google 20% Time Project

Fall 2021

Application into Applied Combinatorics.

Research project involving Dijkstra's algorithm with Eulerian Circuits.

Implementation involved using open maps and coding in Java.

### **ImaginaryCTF**

Fall 2020 - Spring 2023

Created cryptographic problems using more efficient algorithms from IACR\*.

Increased proficiency in reading research papers and applying them to cybsersecurity projects.

#### LEADERSHIP POSITIONS

## Hats On Cybersecurity - President

Spring 2023 - Present

Created and presented numerous talks on cybersecurity.

Talked about modern applications and specific problems that are presented in competitions.

Introduced basic fundamentals to mastery level information.

#### Egg Heads - Team Captain

2019 - Present

Done numerous cybersecurity competitions around the world and placed exceedingly well.  $^{1}$ 

Placed 1st in Georgia for numerous competitions.1

<sup>\*</sup> International Association for Cryptologic Research

<sup>&</sup>lt;sup>1</sup> More information is on my website.

## ImaginaryCTF - Board Member

Fall 2020 - Spring 2023

Hosted international competition ranging 6000 players.

Handled problems within the community and daily challenges that arose from our goal.

Handled business operations and sending out daily CTF\*\* problems to the community.

## **Cornerstone Entertainment Company - Manager**

2020

Hired and managed administrators to support and manage clients

#### TEACHING EXPERIENCE-

#### **University of Georgia**

Math Tutor

Spring 2023 - Present

Helped tutor and mentor those in the precalculus and calculus sequence.

Helped tutor students who are taking an introductory proofs class and abstract algebra.

Peer Learning Assistant

Fall 2023

Calculus II for Scientists and Engineering

Mentored by Dr. Jacob Hicks.

Competitively chosen from applicant pool.

Lead lectures and answer questions about course content.

Increased participation and peer-to-peer learning environment.

#### ACADEMIC TALKS

Primes and Fakes, Carmichael and the Twisted Prime Omega Function

2023

University of Georgia Directed Reading Program Student Seminar, Athens, GA

Rational Solutions to Pythagorean Triples

2023

2023

University of Georgia Directed Reading Program Student Seminar, Athens, GA

#### HONORS AND AWARDS\_

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Kossack Exam

Placed 3<sup>rd</sup> place in the 2023 UGA Kossack Calculus Exam.

#### **Competitions**

CyberPatriot - 1st Place Georgia [2019-2022]

PicoCTF 2022 - 27/7794

UTCTF 2022 - 23/560

NCL Fall 2021 Individual Game - 48/6481

pbCTF 2021 - 44/210

DeconstruCT.F 2021 - 4/300

TamilCTF 2021 - 16/333

H@cktivityCon 2021 CTF - 37/1721

National Cyber Scholarship Competition 2021 – 51/3277

NCL Spring 2021 Individual Game - 29/4180

X-MAS CTF 2020 - 9/1064

<sup>\*\*</sup> Capture the Flag, a format for cybersecurity competitions

<sup>&</sup>lt;sup>1</sup> More information is on my website.

NCL Fall 2020 Individual Game – 38/6013 Newark Academy CTF 2020 – 76/968 ångstromCTF 2019 – 71/1570 PicoCTF 2019 – 33/60595

## SKILLS \_\_\_\_\_

### **Certifications:**

CompTIA Security+ – Network and administrative security including cryptographic protocols MTA Networking Fundamentals – Introduction into administrative networking by Microsoft MTA Software Development Fundamentals – Programming in C, C#, and Python by Microsoft

Computer Languages: LaTeX, Python, Java, C, C#

## **COURSEWORK**

MATH 2250: Calculus I	Fall 2022
MATH 2260: Calculus II	Spring 2023
CSCI 2610: Discrete Mathematics for Computer Science	Spring 2023
MATH 3200: Introduction to Higher Mathematics	Spring 2023
MATH 2700: Elementary Differential Equations	Summer 2023
CSCI 1730: Systems Programing in C	Fall 2023
MATH 2500: Calculus III	Fall 2023
MATH 3100: Sequences and Series	Fall 2023
MATH 6000: Modern Algebra and Geometry I	Fall 2023
MATH 6010: Modern Algebra and Geometry II	Spring 2024
MATH 6400: Number Theory	Spring 2024