

Sriaditya Vedantam

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EDUCATION

University of Georgia

Bachelor of Science (BS) in Computer Science & Mathematics

Emphasis in Theoretical Computer Science, Cybersecurity, Pure Mathematics

Athens, GA, USA

Spring 2026

RESEARCH EXPERIENCE

Small Satellite Research Lab, University of Georgia

Data Scientist Team Lead

Athens, GA

Spring 2024 - Present

- Implementing and optimizing neural network applications with computational topology.
- Led a research engineering team of 12 members by defining short-term milestones increasing departmental output by over 80%.
- Working with NeRF (Neural Radiance Fields) with satellite imaging and drone data utilizing ML/CV along with implementation of perceptron with a more tensor based perspective.
- Utilized many ML frameworks, deciding on PyTorch.
- Later projects consisted of optimization of data transmission from space leading to viability of transmitters and fields of radii for wavelengths over a designated area.
- Area of transmission was less than 50 miles, leading to requirement for accuracy of data (image and video transmission), and scope, determining viability for grants of over \$100,000 from NASA.

Mathematics Department, University of Georgia

Research Experience

Athens, GA

Spring 2024 – Fall 2025

- Focus on Exceptional Lie Algebras and their connections to Coxeter-Dynkin Diagrams.
- Read numerous papers linking with topics in Algebraic Geometry gaining foundational experience to reading research and papers, fostering a direction of interest.

Directed Reading Program Mentee

Spring 2023 – Spring 2025

- Focus on Birch and Swinnerton-Dyer Conjecture, Discrete Log problem, and elliptic curves applications in cryptography.
- Implemented early ECC algorithms with perspectives from math and looked into PQC Isogeny-Based Proposed Cryptographic Algorithms to understand fallacies in them, such as in SIKE.
- Focus on Kähler Manifolds and Complex Geometry.
- Focus on Elliptic Curves.
- Focus on Fermat's Little Theorem.

Cybersecurity Team, ImaginaryCTF

Board Member

Leuven, Belgium

Fall 2020 – Fall 2023

- Increased platform engagement by hosting an international competition with 60,000 participants.
- Coordinating operations and prize logistics with sponsors from Google, TryHackMe, OtterSec, and DigitalOcean.
- Improved challenge quality and integrity by designing cryptography problems grounded in current research.
- Utilized and implemented research papers from the International Association for Cryptologic Research (IACR).
- Oversaw teams to enhance efficiency and ensure distribution across network systems for projects and software.

Mathematics Department, Georgia Institute of Technology

Research Project Developer

Atlanta, GA

Fall 2021

- Delivered a graph theory application by implementing Dijkstra's algorithm with Eulerian circuit logic.
- Implemented the application in Java and integrated mapping API calls from Open Maps for real-world route use.

TEACHING EXPERIENCE

Mathematics Department, University of Georgia

Athens, GA

Peer Learning Assistant

Spring 2023 – Fall 2023

- Helped co-instruct as an assistant with a Lead Professor for Calculus II and III for Scientists and Engineers.
- Present curated material from Dr. Jacob Hicks often along with traversing the class and providing individual help and reasoning through problems.
- Provided lecture, review of the homework and classwork, facilitate discussion amongst students, and held office hours every week and by appointment.

SELECTED PUBLICATIONS / PRESENTATIONS

Vedantam, S., & Wang, H. (2023). Directed Reading Program Student Seminar. Athens, GA; Mathematics Department in the University of Georgia. Retrieved from <https://www.math.uga.edu/directed-reading-program>.

Vedantam, S., & Wang, H. (2023a). Directed Reading Program Student Seminar. Athens, GA; Mathematics Department in the University of Georgia. Retrieved from <https://www.math.uga.edu/directed-reading-program>.

OTHER EXPERIENCE

University of Georgia

Athens, GA

Parking Operations Representative

Spring 2024 - Present

- Eliminated 6 months of backlog by building a selenium automation workflow that executed 40,000 tasks.
- Increased reporting accuracy by 60% and reliability by managing restricted-access operations across campus.
- Maintained financial reports with records of over \$50,000 while maintaining compliance and record keeping.

Cornerstone Entertainment Company

Raleigh, NC

Community Specialist Manager

Spring 2021 – Fall 2021

- Improved community retention and engagement by stabilizing staffing operations for a network of 200 users.
- Increased customer satisfaction 75% with coordination with developers to resolve platform reliability.

HONORS AND AWARDS

Kossack Exam

2023

- Third Place Award out of 50 participants

FBLA National Finalist for Management Information Systems

2022

- Placed 8th place nationally single-handedly representing Georgia in a Case Study Competition

1st Place Georgia, CyberPatriot XIV

2022

- Ended 1st place in Georgia and Top 30 in the US as a Semifinalist for the Platinum Division in CyberPatriot.

National Cyber Scholar

2021

- Place 51st place out of over 3000 qualifying competitors and over 10,000 competitors.
- Second Place Holder in Georgia.
- Awarded \$3,000 Scholarship.

FBLA National Finalist for Management Information Systems

2021

- Placed 7th place nationally single-handedly representing Georgia in a Case Study Competition

1st Place Georgia, CyberPatriot XIII

2021

- Ended 1st place in Georgia and Top 30 in the US as a Semifinalist for the Platinum Division in CyberPatriot.

1st Place Georgia, CyberPatriot XII

2020

- Ended 1st place in Georgia and Top 30 in the US as a Semifinalist for the Platinum Division in CyberPatriot.

Semifinalist, CyberPatriot XI

2019

- Ended as a Semifinalist and Top 100 in the US for the Gold Division in CyberPatriot.

Semifinalist, CyberPatriot X

2018

- Ended as a Semifinalist and Top 100 in the US for the Middle School Division in CyberPatriot.

22nd Place / 7794 - The Teamless A - picoCTF 2022	2022
• Cybersecurity Capture the Flag Competition	
23rd Place / 560 - TAMU Cyber Club - UTCTF 2022	2022
• Cybersecurity Capture the Flag Competition	
48th Place / 6481 - NCL Fall 2021 Individual	2021
• Cybersecurity Capture the Flag Competition	
35th Place / 3917 - Egg Heads - NCL Fall 2021 Team	2021
• Cybersecurity Capture the Flag Competition	
44th Place / 210 – The Teamless - pbctf 2021	2021
• Cybersecurity Capture the Flag Competition	
4th Place / 300 – ducks0ci3ty - DeconstruCT.F 2021	2021
• Cybersecurity Capture the Flag Competition	
37th Place / 1721 – ducks0ci3ty – H@ctivityCon 2021	2021
• Cybersecurity Capture the Flag Competition	
140th Place / 1216 – ducks0ci3ty - CSAW '21 Qualifiers	2021
• Cybersecurity Capture the Flag Competition	
140th Place / 4740 – ducks0ci3ty - HackTheBox Cyber Apocalypse 2021	2021
• Cybersecurity Capture the Flag Competition	
29th Place / 4180 - NCL Spring 2021 Individual	2021
• Cybersecurity Capture the Flag Competition	
22nd Place / 922 - Egg Heads - NCL Spring 2021 Team	2021
• Cybersecurity Capture the Flag Competition	
282nd Place / 1059 - ducks0ci3ty - DiceCTF 2021	2021
• Cybersecurity Capture the Flag Competition	
3rd Place / 12 - KSU ISA CTF 2020	2020
• Cybersecurity Capture the Flag Competition	
9th Place / 1064 - ducks0ci3ty - X-MAS CTF 2020	2020
• Cybersecurity Capture the Flag Competition	
38th Place / 6013 - NCL Fall 2020 Individual	2020
• Cybersecurity Capture the Flag Competition	
27th Place / 957 - Egg Heads - NCL Fall 2020 Team	2020
• Cybersecurity Capture the Flag Competition	
76th Place / 968 – Egg Heads - Newark Academy CTF 2020	2020
• Cybersecurity Capture the Flag Competition	
65th Place / 483 – Egg Heads (Solo) - TJCTF 2019	2019
• Cybersecurity Capture the Flag Competition	
71st Place / 1570 – Egg Heads - ångstromCTF 2019	2019
• Cybersecurity Capture the Flag Competition	
33rd Place / 60595 – Egg Heads (Solo) - PicoCTF 2019	2019
• Cybersecurity Capture the Flag Competition	

INVITED LECTURES

Rational Solutions to Pythagorean Triples	11/29/2023
<i>University of Georgia</i>	Athens, GA
Primes and Fakes, Carmichael and the Twisted Prime Omega Function	04/27/2023
<i>University of Georgia</i>	Athens, GA

SKILLS

Fullstack Development	ML/CV Frameworks	Cloud Infrastructure
Technical Writing and Reading	Database Administration	C, Java, Python, SQL, SageMATH, Jupyter

LANGUAGES

English – Native

Telugu – Native

SERVICE PROJECTS

Math Club, *VP of Communications and Promotion*

Fall 2025 – Present

The Hack Pack, *Red Team*

Fall 2023 – Spring 2024

Hats On Cybersecurity, *President*

Fall 2022 – Fall 2023

CERTIFICATIONS

Security+, *CompTIA*

May 2021 – May 2024

MTA Software Development Associate, *Microsoft*

April 2021

MTA Networking Associate, *Microsoft*

November 2020

COURSEWORK

CSCI 1302: Software Development

Fall 2022

FYOS 1001: Effects of AI in the Modern Working World (Dr. Suchi Bhandarkar)

Fall 2022

MATH 2250: Calculus I for Scientists and Engineers

Fall 2022

CSCI 2610: Discrete Mathematics for Computer Science

Spring 2023

MATH 2260: Calculus II for Scientists and Engineers

Spring 2023

MATH 3200: Introduction to Mathematical Proofs

Spring 2023

MATH 2700: Elementary Differential Equations

Summer 2023

MATH 2500: Accelerated Calculus III for Engineers

Fall 2023

MATH 3100: Introduction to Mathematical Analysis (prev. Sequences and Series)

Fall 2023

MATH 6000: Abstract Algebra I (prev. Modern Algebra and Geometry I)

Fall 2023

CSCI 1730: Systems Programming

Fall 2023

MATH 3000: Introduction to Linear Algebra

Spring 2024

MATH 6010: Abstract Algebra II (prev. Modern Algebra and Geometry II)

Spring 2024

MATH 4950: Research in Mathematics

Spring 2024

CSCI 2720: Data Structures

Summer 2024

MATH 8300: Introduction to Algebraic Geometry

Fall 2024

CSCI 2670: Introduction to Theory of Computing

Spring 2025

CSCI 4370: Database Management

Spring 2025

MATH 8330: Hodge Theory (Audit)

Spring 2025

MATH 8200: Algebraic Topology (Audit)

Spring 2025

CSCI 4720: Computer Architecture and Organization

Summer 2025

CSCI 4760: Computer Networks

Summer 2025

CSCI 4380: Data Mining

Fall 2025

CSCI 4670: Combinatorics

Fall 2025

MATH 6100: Real Analysis

Fall 2025

MATH 8000: Algebra (Audit)

Fall 2025

CSCI 4470: Algorithms

Spring 2026

CSCI 4800: Human-Computer Interaction

Spring 2026

CSCI 4300: Web Programming

Spring 2026