

# Varun Srinivasarao Budati

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## OBJECTIVE

Highly motivated and detail-oriented Computer Science student with a minor in Mathematics and Finance, possessing excellent communication and organizational skills. Proven ability to work independently and collaboratively in team settings. Keen interest in algorithmic and high-frequency trading, AI, and machine learning. Looking to apply my programming skills and passion for innovative technologies in a dynamic and growth-oriented environment.

## EDUCATION

### Virginia Tech

*Bachelor of Science in Computer Science + Minor in Math & Finance*

GPA: 3.47/4.0

Blacksburg, Virginia

Aug 2023- Present

### IES Bhavans

*Senior School Certificate Examination in Computer Science*

GPA: 91.2/100

Jleeb Al-Shuyoukh, Kuwait

Jan 2010 - May 2023

*Secondary School Examination in Information Technology*

GPA: 94.3/100

## WORK EXPERIENCE

### Reimagining Equity and Accessibility in Computing for Humanity (REACH) Lab

Blacksburg, Virginia

*Research Assistant, Virginia Tech*

March, 2024 – Present

- Conducted an extensive literature review under the leadership of Dr. Ihudiya Finda Williams, on a focused project on Rural Computer Science Education.
- Synthesized over 30+ articles and papers across libraries in computing, education in reparation of \$500,000 National Science Foundation grant.
- Trained 6 research assistants on different methods of searching through databases and provided tools and methodologies for prompt queries.

### The Amricani Cultural Centre - Dar al-Athar al-Islamiyah

Kuwait City, Kuwait

*Web Developer, Intern*

June, 2021 – September, 2021

- Designed and created 5 interactive web-pages for young museum visitors, featuring sequential exhibit zones with QR codes for historical information about Kuwait.
- Developed 8 puzzles and games using cardboard pieces and silhouettes
- Designed 3 interactive tools like query boards/trivia questions to enhance children's learning of Kuwait and Al-Sabah exhibit history.

## PROJECT WORK

### Options Pricing Calculator & Graph Using the Black-Scholes Model

June, 2024 – July, 2024

- Developed an options pricing calculator using Python to implement the Black-Scholes model.
- Calculated call and put option prices along with Greek metrics to assess option price sensitivity.
- Implemented an implied volatility estimator using the Newton-Raphson method.
- Utilized Pandas for structured data display and Matplotlib for visualizing implied volatility against strike prices.

### Messaging App

June, 2022 – September, 2022

- Led and developed a program using Python and SQL that provides results for addition, deletion, and searching a message for input from the user.

### Cyber Security Competition

11 May, 2022

- One of the top 18 groups at the regional competition prepared and presented on the importance of cyber security in daily life to schools across the Middle East and India.
- Presented a paper about "Computer Forensics".

## CORE SKILLS

**Operating systems:** Windows and Linux.

**Programming languages:** Python, Java, SQL, and Matlab.

**Office softwares:** Microsoft Office, LaTeX.

**Languages:** English, Hindi, Telugu, Sanskrit.

## AWARDS

- Dean's List Virginia Tech Fall 2023 & Spring 2024
- Scored 90% in Green Olympiad 2022 organized by The Energy and Resources Institute (TERI)
- Awarded Distinction in National Math Olympiad, Kuwait
- Received Merit certificate in Acer aptitude test, Kuwait 2020
- Declared Winner of BrickMath, Kuwait-2020. Received Merit certificate in Shastra Pratibha, Kuwait 2019