Varun Srinivasarao Budati

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EDUCATION

Virginia Tech, Blacksburg, Virginia   Aug 2023 – Present
Bachelor of Science in Computer Science + Minor in Mathematics & Finance

IES Bhavans, Jleeb Al-Shuyoukh, Kuwait   Jan 2010 – May 2023
Senior School Certificate Examination in Computer Science   GPA: 91.2/100
Secondary School Examination in Information Technology   GPA: 94.3/100

WORK EXPERIENCE

Research Assistant, REACH Lab - Virginia Tech, Blacksburg, Virginia   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.

Web Developer, Intern, The Amricani Cultural Centre, Kuwait City, Kuwait   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

Momentum Trading Strategy Development   May 2024 - August 2024

- Developed a momentum trading strategy using Python, fetching historical stock data and implementing technical indicators (MACD, RSI) to generate buy and sell signals
- Backtested the strategy on historical data, utilizing Pandas for data manipulation and Matplotlib for visualization.
- Performance comparison between strategy returns and buy-and-hold returns Candlestick charting with overlaid technical indicators and trade signals Portfolio value tracking based on simulated trades

Options Pricing Calculator & Graph Using the Black-Scholes Model   June 2024 – July 2024

- Real-time calculation of option prices and Greeks for stock price, strike price, maturity, risk-free rate, and volatility
- Implemented an implied volatility estimator using the Newton-Raphson method.
- Enhanced data analysis efficiency by 30% through utilizing Pandas for structured data display and Matplotlib for visualizing implied volatility against strike prices, leading to more informed decision-making.

CORE SKILLS

Programming languages: Python, SQL, Java, JavaScript, HTML, CSS, and Matlab.

Languages: English, Hindi, Telugu, Sanskrit.

AWARDS

Declared Winner of Brick Math Olympiad, Kuwait

Awarded Distinction in the National Math Olympiad, Kuwait